

# Power Management & Supply Selection Guide



[www.infineon.com/powermanagement](http://www.infineon.com/powermanagement)



Never stop thinking

# Introduction

## INFINEON'S POWER SEMICONDUCTOR PHILOSOPHY

is rather simple: if we invest in development of a new power semiconductor product, it must be substantially superior to any comparable competitor power semiconductor. For the past seven years, Infineon's power semiconductors – CoolMOS™ Super Junction High-Voltage MOSFETs, thinQ!™ Silicon Carbide Schottky Diodes, OptiMOS® 25 & 30V MOSFETs, CoolSET™, PWM / CoolMOS™ combinations, and now OptiMOS®2 100V MOSFETs, OptiMOS®3 30V MOSFETs, CoolMOS™ CP 500V Series and the Second Generation 600V Silicon Carbide Schottky Diodes – exemplify this philosophy. Put us to the test and see why Infineon's Power Semiconductors lead to your Superior Solutions.

POWER MANAGEMENT for application areas such as telecom and information processing systems, continually presents new challenges: growing power demands requiring greater power density, higher efficiency and lower SMPS cost, while available space is constantly shrinking.

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## Gate Driver

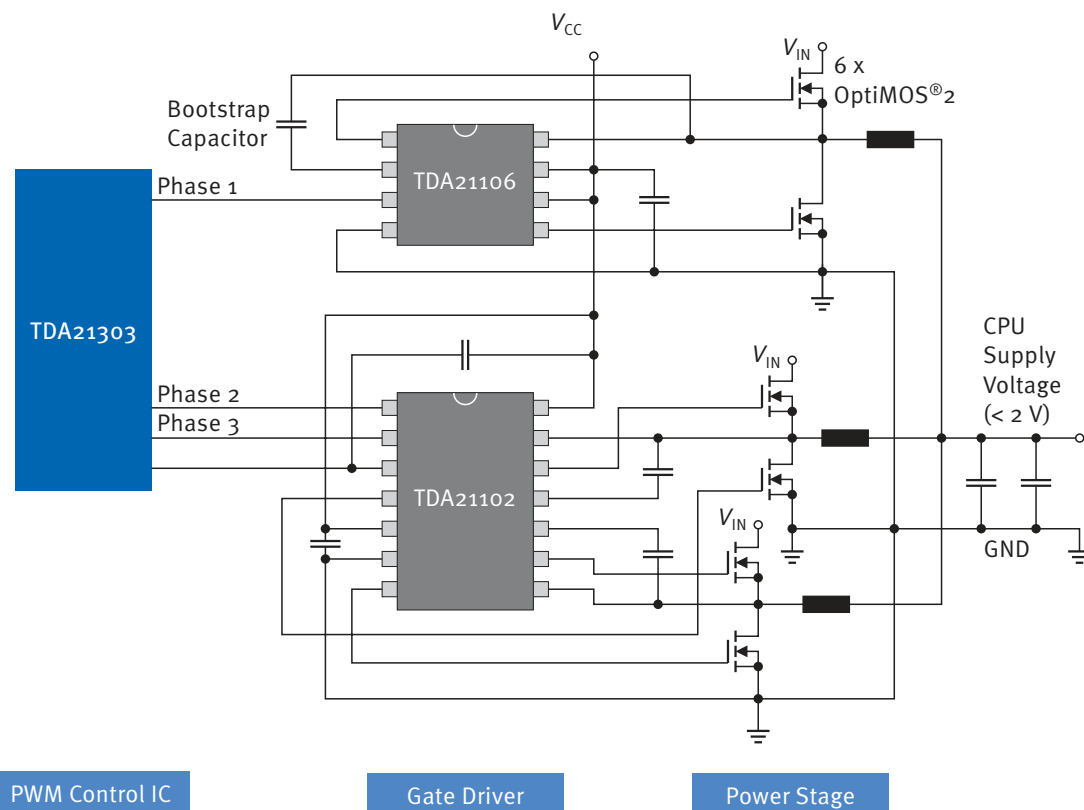
## PWM Control IC

### TDA21102 / TDA21103 / TDA21106 / TDA21107

- Drivers for N-Channel MOSFETs
- Shoot-through protection – adaptive dead-time control
- Tri-state PWM input
- Supply voltage UVLO – Under Voltage LockOut
- Compatible with standard multiphase PWM controllers
- Adjustable high side MOSFET gate driver voltage

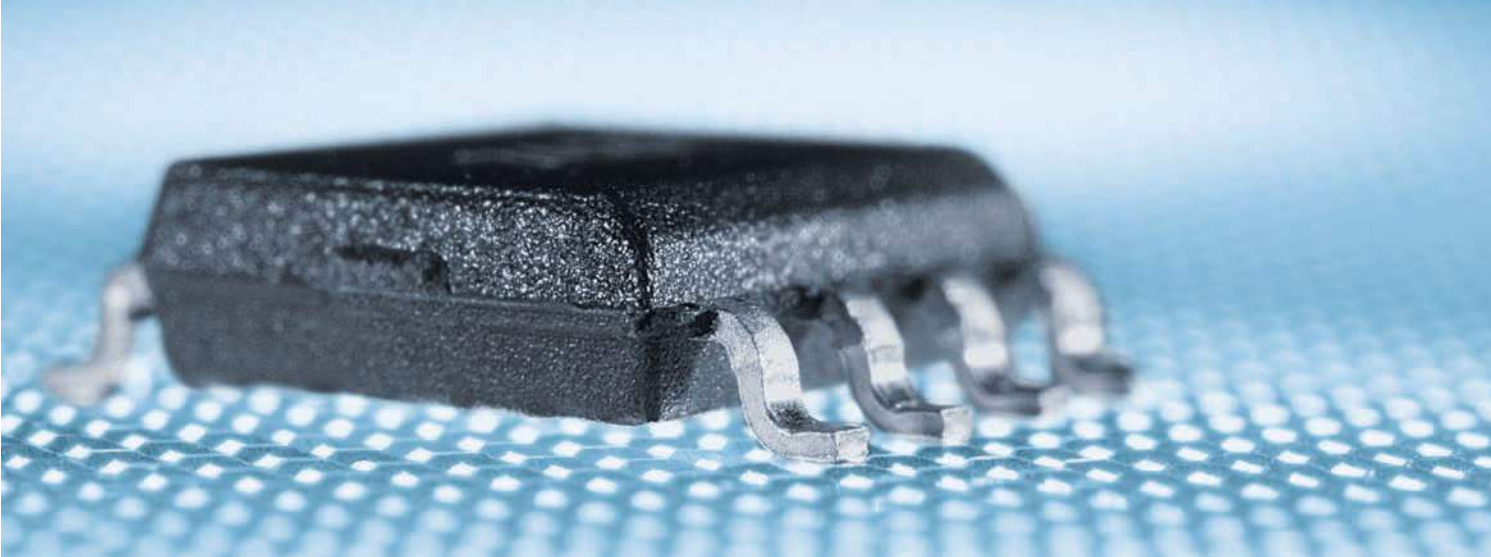
### TDA21301 / TDA21302 / TDA21303

- Multiphase operation
- Active droop compensation for fast transient response
- Smooth V<sub>CORE</sub> voltage transient during dynamic VIDs
- Power stage thermal balance
- Hiccup mode over current protection
- Programmable switching frequency
- UVLO – Under Voltage LockOut
- Programmable soft start and power sequence
- High output ripple frequency times numbers of phases



Application Example:

Standalone gate driver / application circuit (3-phase solution with single and dual gate driver)



Gate Driver	High Performance		Cost Performance Optimized	
	TDA21106	TDA21102	TDA21107	TDA21103
Package	SO-8	SO-14	SO-8	SO-14
ROHS-compliant	✓	✓	✓	✓
Number of channels	1	2	1	2
Maximum junction temperature	-25 to 150°C	-25 to 150°C	0 to 150°C	0 to 150°C
Supply voltage, $V_{CC}$	25 V	25 V	15 V	15 V
BOOT to GND	45 V	45 V	15 V	30 V
PHASE to GND DC	-1 ~ 25 V	-1 ~ 25 V	30 V	15 V
PHASE to GND dynamic	-20 ~ 30 V <sup>1)</sup>	-20 ~ 30 V <sup>1)</sup>	-10 ~ 30 V <sup>2)</sup>	–
Switching frequency	2 MHz	2 MHz	1 MHz	1 MHz
Driving capability -HS	Source: 4 A Sink: 4 A	Source: 4 A Sink: 4 A	Source: 3 A Sink: 3 A	Source: 2 A Sink: 2 A
Driving capability -LS	Source: 4 A Sink: 4 A	Source: 4 A Sink: 4 A	Source: 3 A Sink: 3 A	Source: 2 A Sink: 2 A
Typical propagation delay time	10 ~ 20 ns	15 ~ 20 ns	15 ~ 20 ns	45 ~ 60 ns
Power on overvoltage protection	–	–	–	✓
Integrated bootstrap diode	✓	✓	✓	✓
Product status	Production	Production	Production	Production

1)  $t_{\text{pulse max}} = 500 \text{ ns}$ , Maximum Duty Cycle = 2%

2)  $t_{\text{pulse max}} = 200 \text{ ns}$

PWM	TDA21301	TDA21302	TDA21303
VRM / VRD	VR10.1	VR10	VR10 / VR next generation
Package	TSSOP-28	SO-32	VQFN-40
ROHS-compliant	✓	✓	✓
Number of phases	2 ~ 4	2 ~ 4	2 ~ 4
VID bits	6	6	6
Output voltage	0.8375 ~ 1.6 V	0.8375 ~ 1.6 V	0.8375 ~ 1.6 V
Inductor DCR sensing	✓	–	–
MOSFET RDS(on) sensing	–	✓	✓
OCP, OVP	✓	✓	✓
Dynamic VIDs (VIDs on the fly)	✓	✓	✓
Switching frequency	50 – 400 kHz	50 – 400 kHz	50 – 400 kHz

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)

# TDA21801 – Fan Speed Controller

WITH THE NEW fans peed controller TDA21801, essential system monitoring features of switched mode power supplies (SMPS) such as adjustable minimum fan speed, fan ON/OFF and over-temperature protection (OTP) can be easily implemented. Only few external components added to the IC are necessary for it.

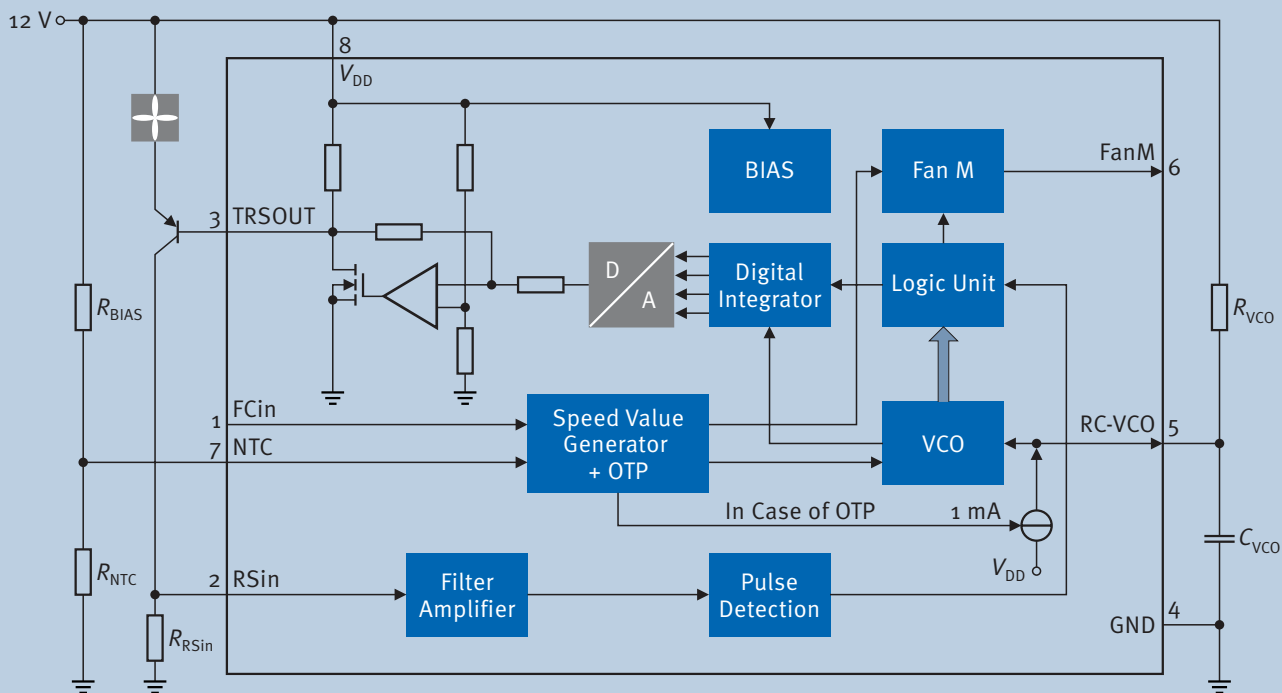
THE TDA21801 is designed for applications using 3- or 4-wire fan solutions like PC silver boxes, Server silver box AC/DC converter and industrial/medical power supplies.

## Benefits

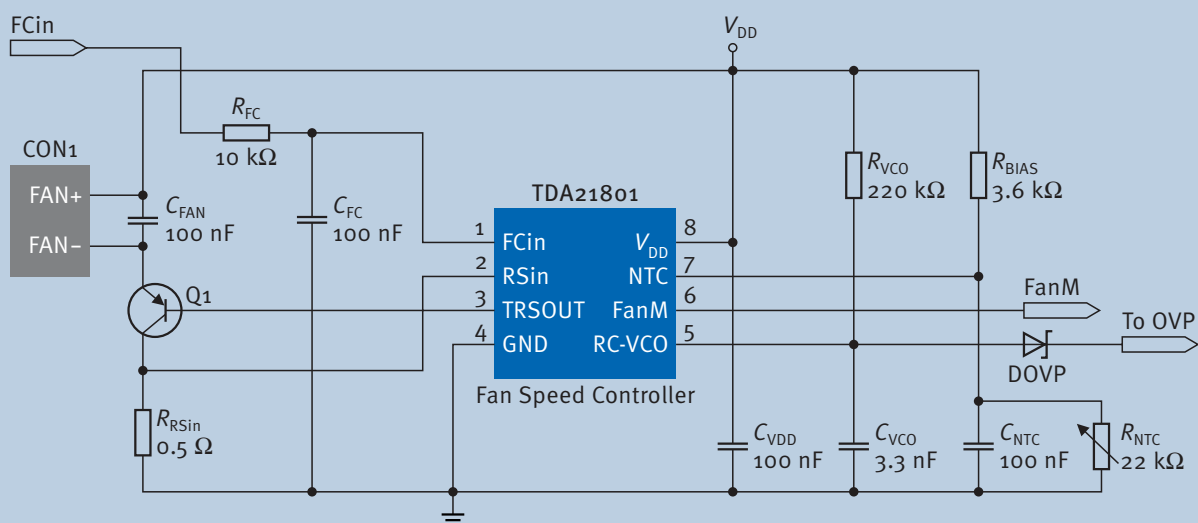
- Full control over fan speed due to precision reference
- Low system cost when replacing 4-wire fans
- Reduced noise level
- Increased safety of power supplies

## Features

- In combination with 2-wire fans same functionality as 4-wire fan solution
- Overtemperature protection feature to protect system and power supply
- Adjustable minimum fan speed (750 rpm to 4000 rpm)
- Fan speed can be increased by external PWM or analogue signal
- SO-8 Package / ROHS compliant



Block Diagram



Typical Application Circuit

# SMPS IC Overview

	PWM Controller								
	Quasiresonant				Fixed Frequency				
	TDA4605-2 TDA4605-3	TDA16846 TDA16847	ICE1QS01 ICE1QS01G	ICE2QS01	ICE3BS02L	ICE3A(B)S02	ICE3DS01	ICE2A(B)S01	TDA16850-2
	General purpose control IC	Universal, high performance control IC including low-power standby and power factor correction	PWM Control IC including advanced burst mode, PFC and frequency reduction for best-in-class efficiency ratings	PWM Control IC including advanced burst mode, PFC and frequency reduction for best-in-class efficiency ratings + active burst mode + start up cell	General purpose Control IC with enhanced ICE3DS01 features	General purpose Control IC with enhanced ICE3DS01 features	General purpose Control IC with enhanced ICE2A(B)S01 features	General purpose Control IC	Control with special features for CRT monitor applications
Typical Application	CVT, VCR, adapter	CTV, VCR, set-top-box, adapter	CTV, VCR, adapter, LCDTV	CTV, VCR, adapter	Applications exceeding the max. power range of CoolSET: charger, adapter, auxiliary power supplies, low end CTV, set-top-box, DVD	Applications exceeding the max. power range of CoolSET: charger, adapter, auxiliary power supplies, low end CTV, set-top-box, DVD	Applications exceeding the max. power range of CoolSET: charger, adapter, auxiliary power supplies, low end CTV, set-top-box, DVD, LCD	Applications exceeding the max. power range of CoolSET: charger, adapter, auxiliary power supplies, low end CTV, set-top-box, DVD	Monitors, CTVs, adapters, chargers
<b>General Features</b>									
Operating mode	Quasiresonant	Quasiresonant Fixed Frequency Synchronized	Quasiresonant	Quasiresonant	Fixed Frequency	Fixed Frequency	Fixed Frequency	Fixed Frequency	Fixed Frequency Synchronized
Switching frequency	< 200 kHz	< 250 kHz adjustable in fixed frequency mode	< 250 kHz	< 250 kHz	100 kHz (67kHz)	100 kHz (67kHz)	110 kHz	100 kHz (67kHz)	60 kHz fixed < 130 kHz sync
Standby frequency	approx. 20 kHz	adjustable	20 kHz	80 kHz / Active Burst Mode	–	–	–	21.5 kHz (20 kHz)	20 kHz
Maximum duty cycle	unlimited	unlimited	unlimited	unlimited	72%	72%	72%	72%	60%
Primary regulation without additional components	✓	✓	✓	✓	–	–	–	–	–
Standby power	5 W / 400 mW	< 1 W / 400 mW	< 1 W / 400 mW	< 1 W / 500 mW	100 mW/no load	100 mW/no load	100 mW/no load	< 1 W / no load	< 1 W / no load
Low standby power mode active burst mode	–	–	–	–	700 mW/500 mW	700 mW/500 mW	480 mW/300 mW	–	–
Soft switching for low EMI	–	–	–	–	✓	✓	✓	✓	✓
Maximum drain-source voltage @ 125°C T <sub>J</sub>	*	*	*	*	*	*	*	*	–
Power range (85 ... 270 V) without heat sink	*	*	*	*	*	*	*	*	–
Power range (190 ... 270 V) without heat sink	–	–	–	–	–	–	–	–	–
Integrated auxiliary power supply	–	–	–	–	–	–	–	–	✓
Integrated 500V start-up cell	–	–	–	✓	✓	✓	✓	–	–
PFC functionality	–	Charge Pump	Charge Pump	Charge Pump	–	–	–	–	–
<b>Protection Features</b>									
Undervoltage lock-out	✓	✓	✓	✓	✓	✓	✓	✓	✓
Overload and open loop correction protection	✓	✓	✓	✓	✓	✓	✓	✓	✓
Overload protection	✓	✓	✓	✓	✓	✓	✓	✓	–
Secondary undervoltage	✓	✓	✓	✓	–	–	–	–	–
Cycle by cycle current limitation	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sophisticated power limitation management	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temporary high-power circuit	–	TDA16847	–	–	✓	✓	✓	–	–
Adjustable peak current limitation via external resistor	–	✓	✓	✓	✓	✓	✓	✓	✓
Current limitation via internal sense field	–	–	–	–	–	–	–	–	–
Demagnetization protection	✓	✓	✓	✓	–	–	–	–	–
Thermal shut-down (with auto-restart)	–	–	–	–	–	✓	–	✓	✓
Thermal shut-down with latch off	✓	✓	✓	–	✓	–	✓	–	–
Auto restart mode for all protection features	–	–	–	✓	–	✓	–	✓	–
Auto restart mode for overload, open loop, V <sub>CC</sub> undervoltage, short optocoupler	–	–	–	–	✓	–	✓	–	–
Latch-off mode for V <sub>CC</sub> overvoltage, overtemperature and short winding/short diode	–	–	–	–	✓	–	✓	–	–
Latch-off enable pin	–	–	–	–	–	–	–	–	–
Brown out protection	–	–	–	–	–	–	–	–	–
Supply current with inactive gate (typ.)	11 mA	5 mA	11 mA	2.5 mA	6.5 mA	7.0 mA (6.5 mA)	7.2 mA	6.5 mA	3 ... 10 mA
VCC operating range	7.5 ... 15.5 V	8 ... 16 V	9 ... 20 V	11 ... 25 V	8.5 ... 21 V	8.5 ... 21 V	8.5 ... 21 V	8.5 ... 21 V	8.5 ... 22 V
DIP-package	DIP-8	DIP-14	DIP-8	DIP-8	DIP-8	DIP-8	DIP-8	DIP-8	DIP-8
SMD-package	–	SO-14	SO-8	–	–	SO-8	SO-8	SO-8	–
ISODRAIN-package	–	–	–	–	–	–	–	–	–

\* Depending on topology and switching transistor

\*\* Only available in ISODRAIN package





# PWM Controller

## TDA4605-2 / TDA4605-3

Control IC for Switched-Mode Power Supplies using MOS Transistor

- Fold-back characteristic protects external components
- Burst mode at secondary short-circuit
- Protection against open or a short of the control loop
- Mains undervoltage lock-out
- Soft-start for quiet start-up without noise
- Chip-over temperature protection
- Not for new designs, replaced by TDA16846

## TDA16846 / TDA16847

SMPS Controller Supporting Low-power Standby and Power Factor Correction

- Line current consumption with PFC
- Stable and adjustable standby frequency
- Very low start-up current
- Soft-start for quiet start-up
- Freely usable fault comparators
- Synchronization and fixed frequency facility
- Over and undervoltage lock-out
- Switch off at mains undervoltage
- Temporary high-power circuit (only TDA16847)
- Mains voltage dependent fold-back point correction
- Continuous frequency reduction with decreasing load
- Adjustable ringing suppression time

## ICE1QSo1

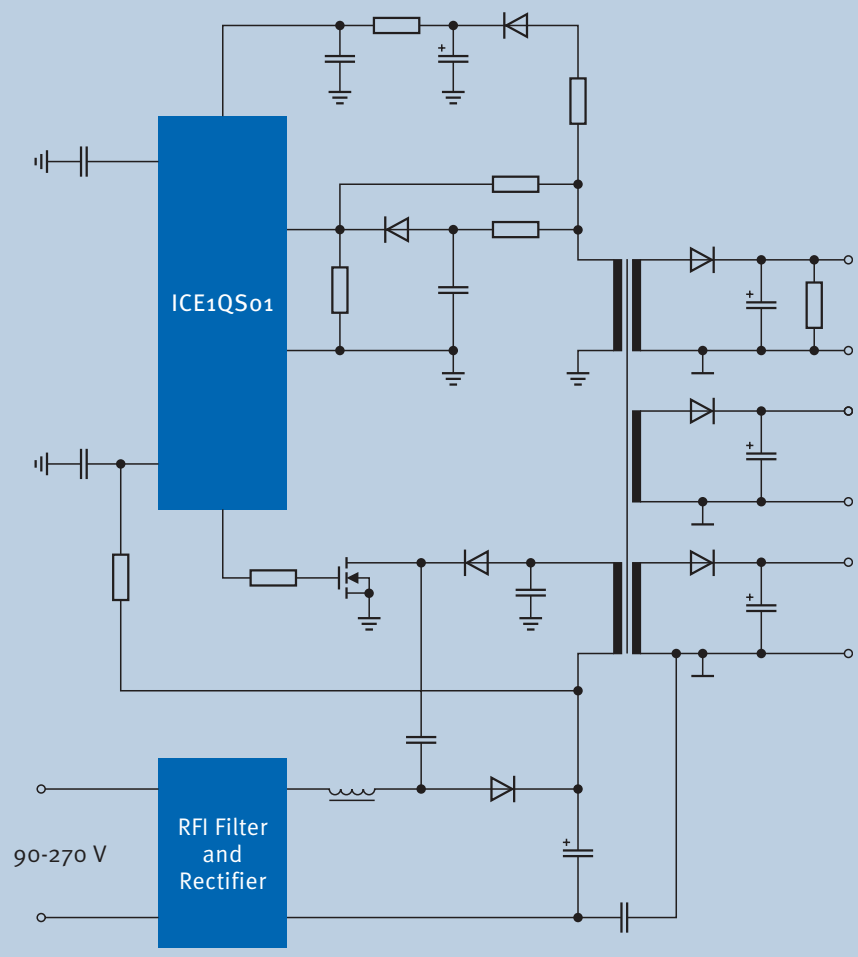
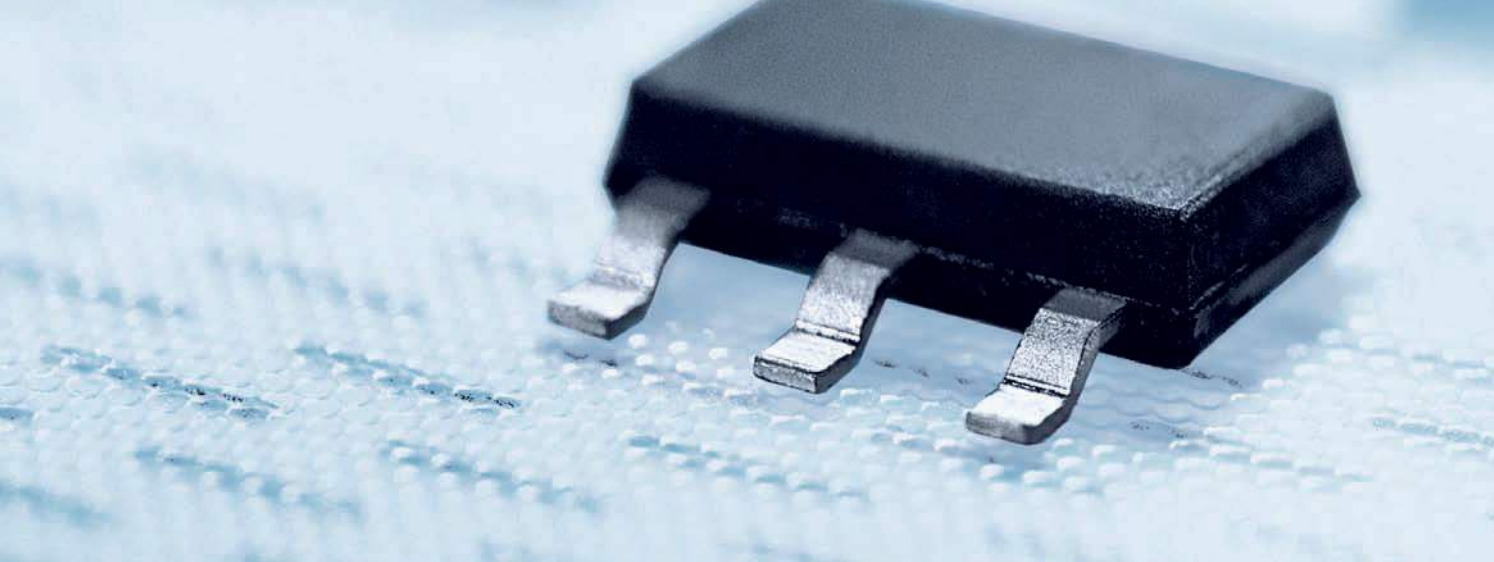
SMPS Controller with very few peripheral components, featuring Advanced Burst Mode, Frequency Reduction and Power Factor Correction

- Line current consumption with PFC
- Stable standby frequency of 20 kHz
- Advanced burst mode < 1 W @ 350 mW sec. power
- Soft-start for noiseless start-up
- Digital frequency reduction for higher efficiency and no-jitter designs
- Over and undervoltage protection
- Fold-back point correction for stable output power independent of line voltage variations
- Ringing suppression time controlled by output power
- Additional fault comparator optionally useable

## TDA16850-2

SMPS Controller for CRT Monitors

- Controller for fly-back topology
- Current mode PWM with spike blanking
- Leading edge triggered pulse with modulation
- Fast, soft switching totem pole gate drive (1 A)
- Soft-start management for safe start-up
- Off mode with power consumption less than 1 W
- Fast and slow peak current limitation
- All protection features available



Application Example:  
80 W Demoboard with ICE1QSo1 and Primary Regulation

# PWM Controller

## ICE2XS01

Off-line SMPS Current Mode Controller

- PWM – Current Mode Controller
- 67 kHz and 100 kHz fixed frequency operation
- Max duty cycle up to 72%
- Frequency reduction for low standby
- Adjustable soft-start
- Propagation delay compensation
- Internal leading edge blanking
- Fully protected
- DIP-8 / SO-8

## ICE3DS01

Off-line SMPS Current Mode Controller

- PWM and 500 V start-up cell in one package
- Active burst mode for ultra-low standby power ( $P_{IN} < 100$  mW)
- Short-term overload function
- New protection: latched OFF or auto restart
- 110 kHz fixed frequency operation
- May duty cycle up to 72%
- Adjustable soft-start
- Propagation delay compensation
- Internal leading edge blanking
- Fully protected
- DIP-8 / SO-8

## ICE3AS02

Additional features to ICE3DS01

- 100 kHz
- All protections : auto-restart

## ICE3BS02

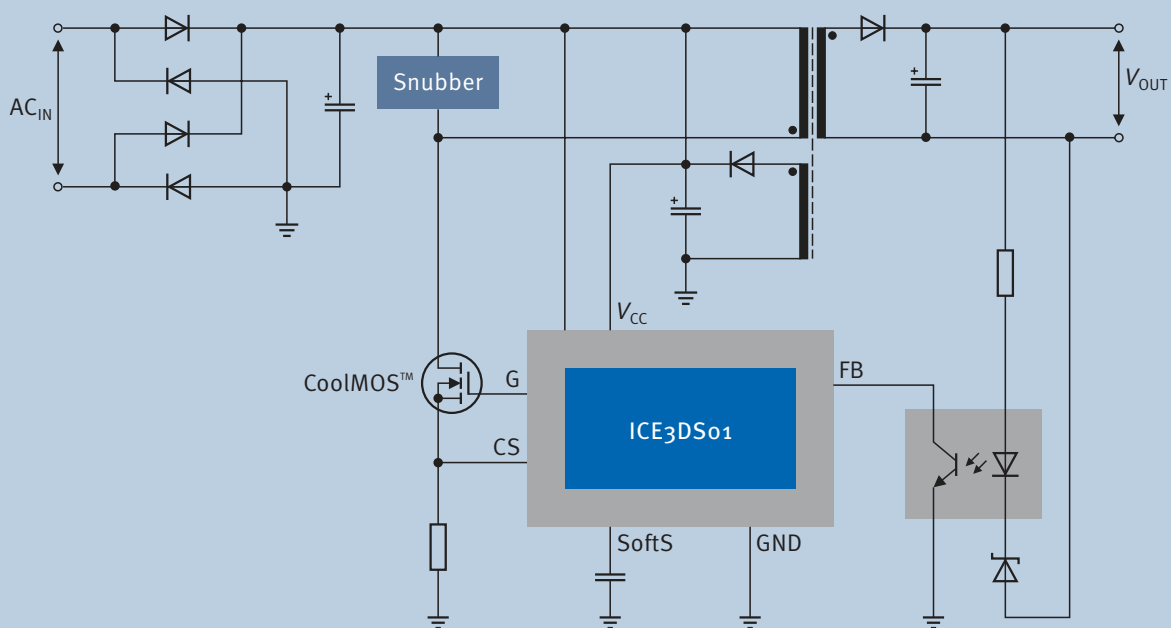
Additional features to ICE3DS01

- 67 kHz
- All protections : auto-restart

## ICE3BS02L

Additional features to ICE3DS01

- 67 kHz
- DIP-8



Application Example:  
Circuit Diagram for PWM Fly-back Converter

# Smart Ballast Controller

## ICB1FLo2G

Smart Ballast Controller ICB1FLo2G is designed to control a Fluorescent Lamp Ballast including

- Discontinuous Conduction Mode Power Factor Correction (PFC)
- Lamp Inverter Control and
- High Voltage Level-Shift Half Bridge Driver with Coreless Transformer Technology in one package.

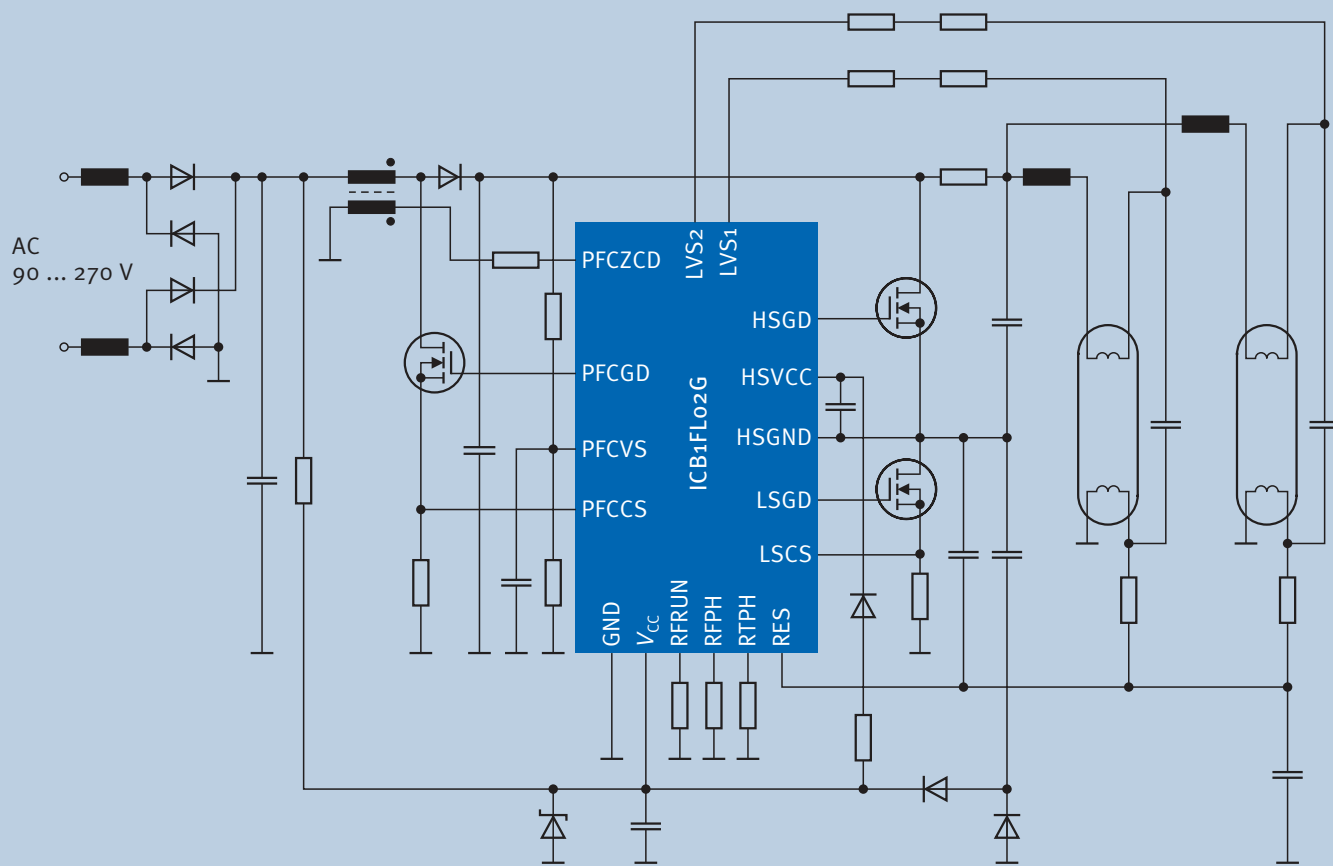
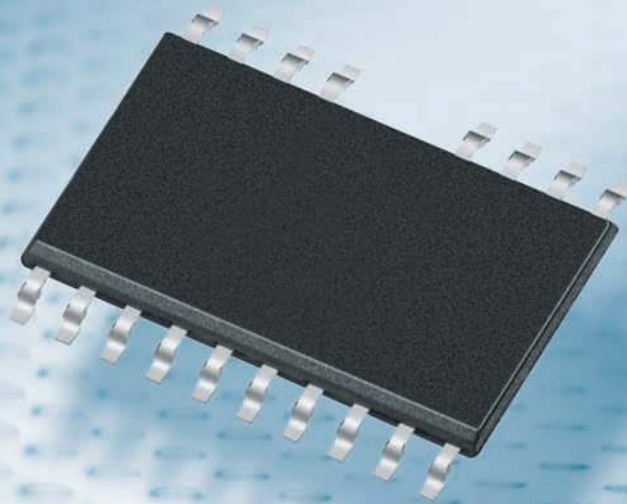
### Product Highlights

- Critical conduction mode PFC with overcurrent and overvoltage protection and internal loop compensation
- End-of-life detection in multilamp topologies and detection of capacitive mode operation in T5 designs
- Improved reliability and minimized spread due to digital and optimized analog control functions

Short Form Data	min.	typ.	max.
Operating Voltage Range	10.5 V	–	17 V
Turn-on Threshold	–	14 V	–
Supply Current during UVLO and Fault Mode	–	–	150 $\mu$ A
Operating Frequency of Inverter during Run Mode	20 kHz	–	100 kHz
Operating Frequency of Inverter during Preheating Mode	Run Frequency	–	150 kHz
Preheating Time	0	–	2000 ms
Dead Time between LS and HS Gate drive	–	1750 ns	–
Operating Voltage Range of floating HS Gate Drive	-900 V	–	+900 V
LS Current Limitation Threshold during Ignition	–	0.8 V	–
LS Current Protection Threshold	–	1.6 V	–
End-of-Life Detection Threshold	-230 $\mu$ A	–	+230 $\mu$ A
Amplitude Ratio for Detection of Rectifier Effect	0.85	–	1.15
Detection of non-ZVS Operation CapMode 1 & 2	–	–	–
PFC Preconverter control with critical and discontinuous CM	–	–	–
Maximum controlled on-time	–	23.5 $\mu$ s	–
Hysteresis of Zero Current Detector	–	1 V	–
PFC current Limitation Threshold	–	1 V	–
Reference voltage for control of Bus Voltage	2.47 V	2.50 V	2.53 V
Overvoltage Detection Threshold	–	2.75 V	–
Undervoltage Detection Threshold	–	1.83 V	–
Open Loop Detection	–	0.375 V	–
Junction Operating Temperature Range	-25°C	–	+125°C
Pb-free Lead Plating; ROHS compliant	–	–	–

Due to a minimum number of external components necessary, system costs can be brought down significantly.

ICB1FLo2G can be used and designed easily and is therefore a basis for cost effective ballast solutions of the future.



Block Diagram:  
Smart Ballast Controller – ICB1FL02G

# PFC and Combo Controller

## ICE1PCSo1

Stand-alone Power Factor Correction (PFC) Controller in Continuous Conduction Mode

- Easy to use with very few external components
- Average current control
- Programmable operating frequency (50 to 250 kHz)
- Unique set of protection features including brown-out protection and boost diode protection
- Precise internal reference voltage
- Unique soft-start
- Enhanced dynamic response
- Leading edge modulation

## ICE1PCSo2

Additional features to ICE1PCSo1

- Brown out protection
- Fixed Frequency 67 kHz

## TDA4862

Power Factor Controller (PFC) IC for High-power Factor and Active Harmonic Filter

- IC for sinusoidal line-current consumption
- Power factor approaching 1
- Controls boost converter as an active harmonics filter
- Internal start-up with low current consumption
- Zero current detector for discontinuous operation mode
- High current totem pole gate driver
- Trimmed  $\pm 1.4\%$  internal reference
- Undervoltage lock out with hysteresis
- Very low start-up current consumption
- Pin compatible with world standard
- Output overvoltage protection
- Current sense input with internal low pass filter
- Totem pole output with active shutdown during UVLO
- Junction temperature range  $-40^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Available in DIP-8 and SO-8 packages

## TDA4863 / TDA4863-2

Power Factor Controller IC for High-power Factor and Low THD

Additional Features to TDA4862

- Reduced tolerance of signal levels
- Improved light load behavior
- Open loop protection
- Current sense input with leading edge blanking LEB
- Undervoltage protection

## ICE1PD265

PFC CoolSET™ version of TDA4863

- 650 V avalanche rugged CoolMOS™
- $R_{DS(on)} = 1.1 \Omega$
- DSO-16 package
- PFC output power
  - 55 W @  $V_{IN} = 90 \text{ V}$  ( $T_A = 70^{\circ}\text{C}$ )
  - 140 W @  $V_{IN} = 180 \text{ V}$  ( $T_A = 70^{\circ}\text{C}$ )
- Reduced size and assembling costs
- Highest efficiency due to lower power dissipation

## TDA16888

High-performance Power Combi Controller

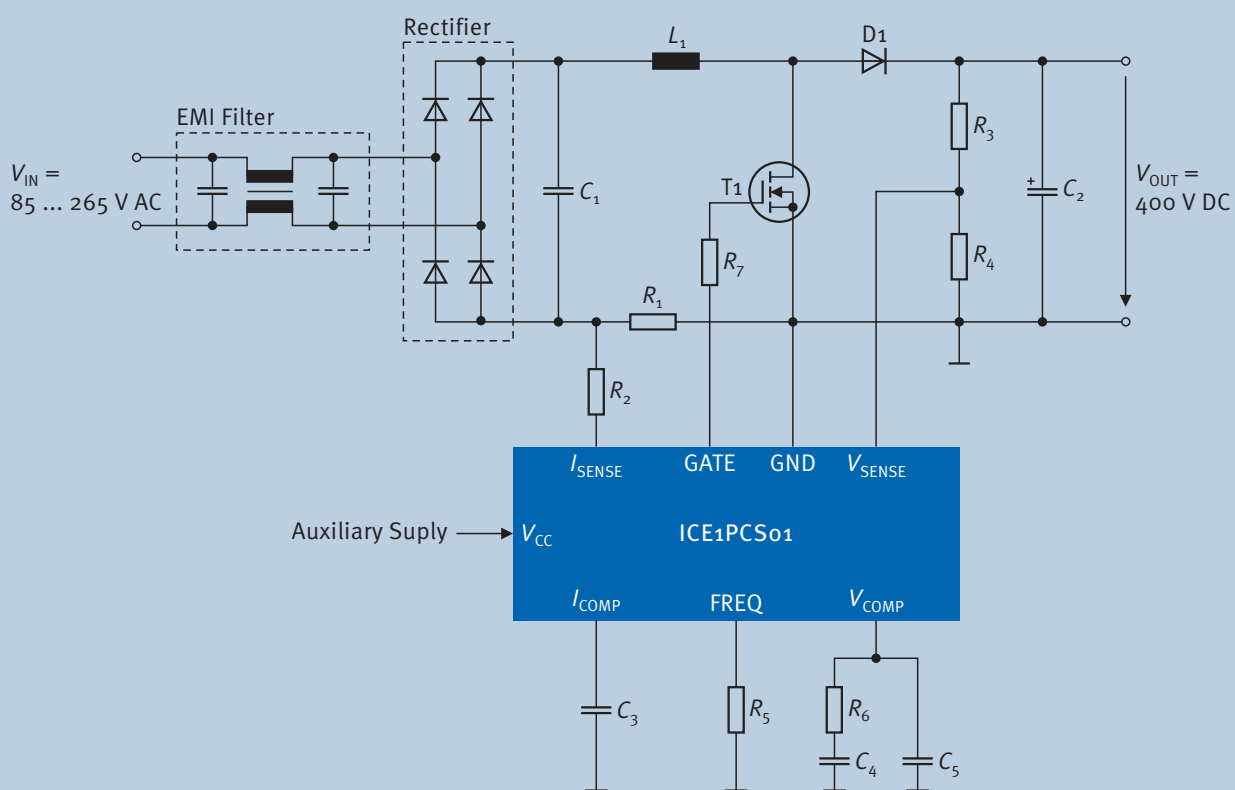
PFC Section

- IEC 1000-3 compliant
- Additional operation mode as auxiliary power supply
- Fast, soft switching totem pole gate drive (1 A)
- Leading edge triggered pulse width modulation
- Peak current limitation
- Continuous/discontinuous mode possible
- 94% maximum duty cycle

## PWM Section

- Improved current mode control
- Fast, soft switching totem pole gate drive (1 A)
- Soft-start management
- Topologies are forward or fly back
- 50% maximum duty cycle





Application Example:  
Circuit Diagram for PFC Boost Converter

# CoolSET™

## ICE2Axxx / ICE2Bxxx

Off-line SMPS Controller with 650 V / 800 V CoolMOS™ on Board  
(High Protection & Energy Saving Solution)

- 650 V or 800 V avalanche rugged CoolMOS
- Typical  $R_{DS(on)} = 0.45 \Omega \dots 4.7 \Omega$  at  $T_j = 25^\circ\text{C}$

### General Features

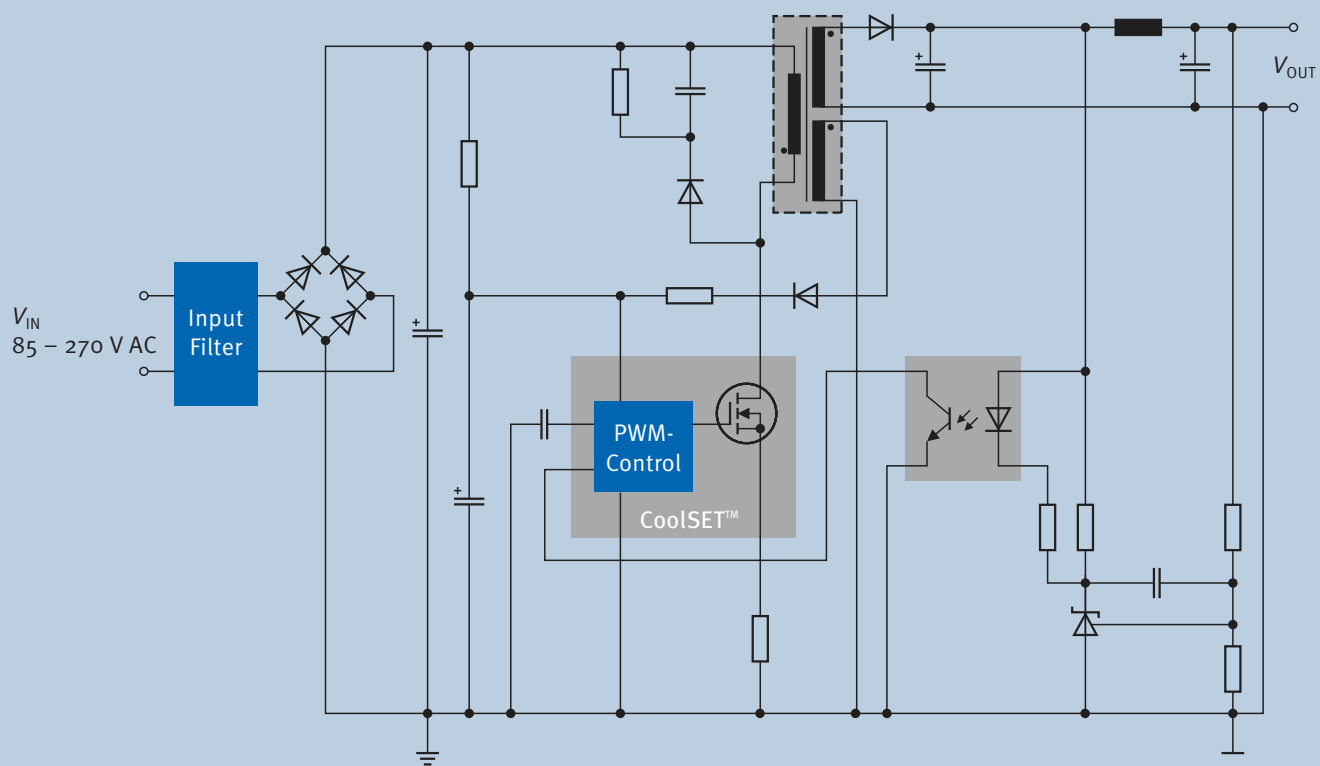
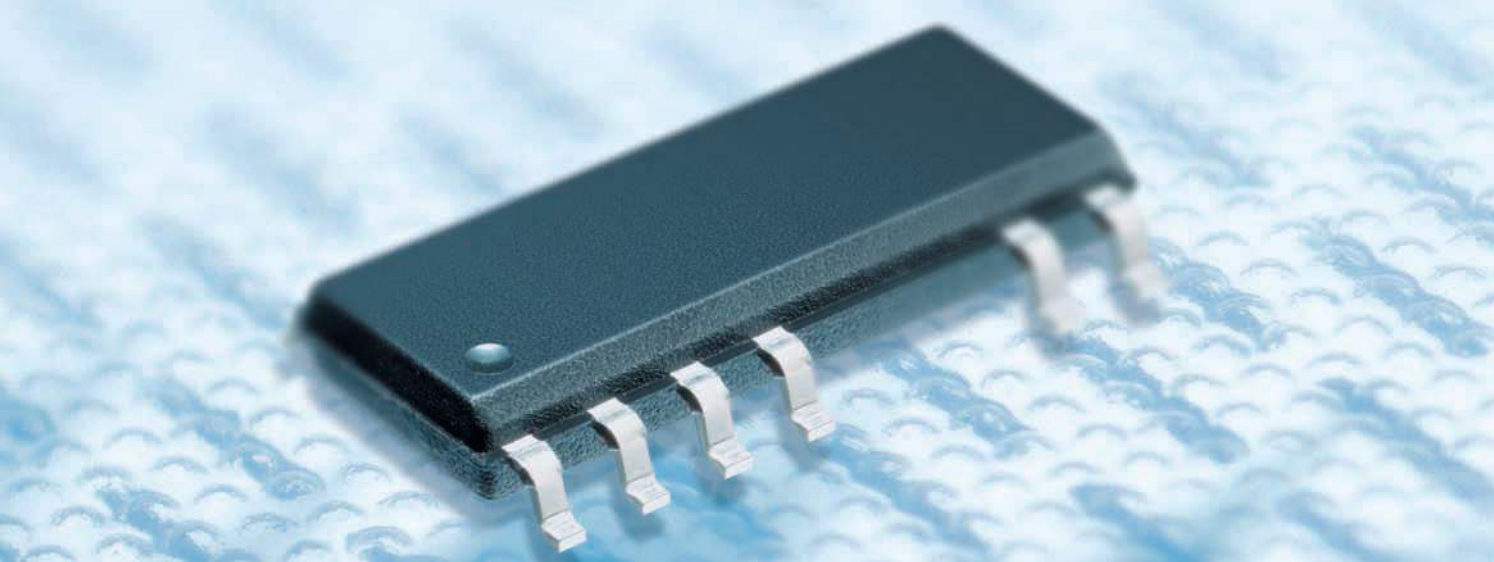
- Frequency reduction for lowest standby power  
(below 1 W) to meet European requirements  
100 kHz / 67 kHz switching frequency
- Internal leading edge blanking
- Modulated gate drive for soft switching
- High peak power accuracy
- DIP-7, DIP-8 or P-TO220-6, I<sup>2</sup>-PAK package

## ICE3Axxxx / ICE3Bxxxx

Off-line SMPS Controller with 650 V CoolMOS on Board  
(High Protection & Energy Saving Solution)

### Additional Features to ICE2Axxx/ICE2Bxxx

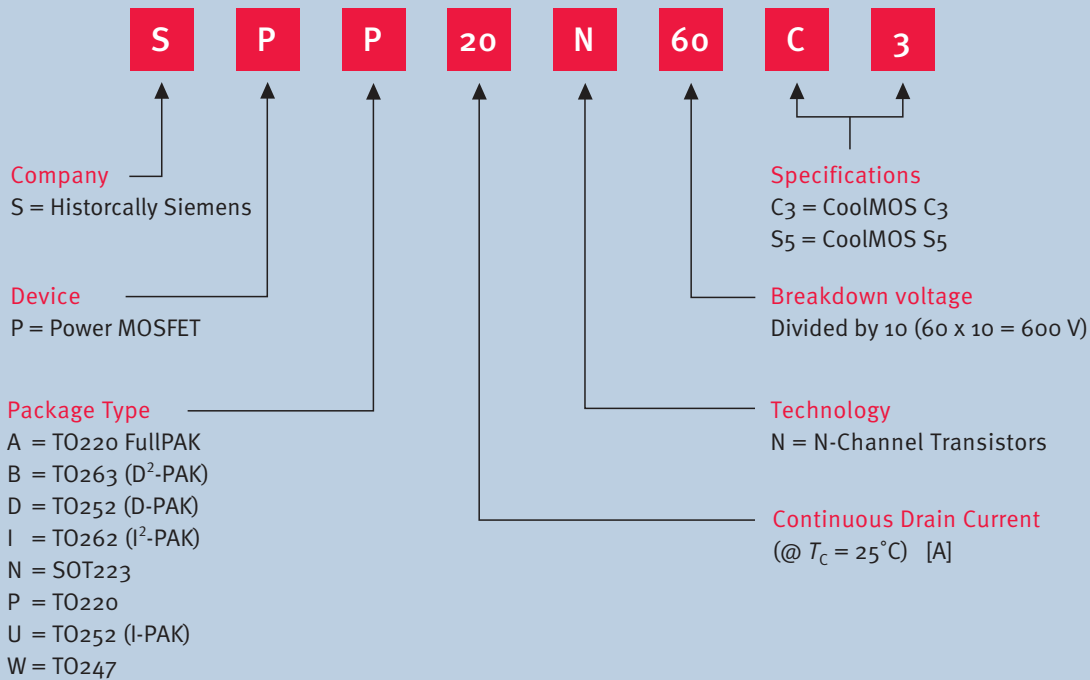
- Startup cell
- Active burst mode
- Lowest standby power < 0.1 W
- Adjustable blanking window for load jump
- Switching frequency jittering ( for J and LJ version )
- Latch off mode protection ( for L and LJ version )
- Frequency jittering ( for J and LJ version )
- Latch enable pin ( for LJ version )



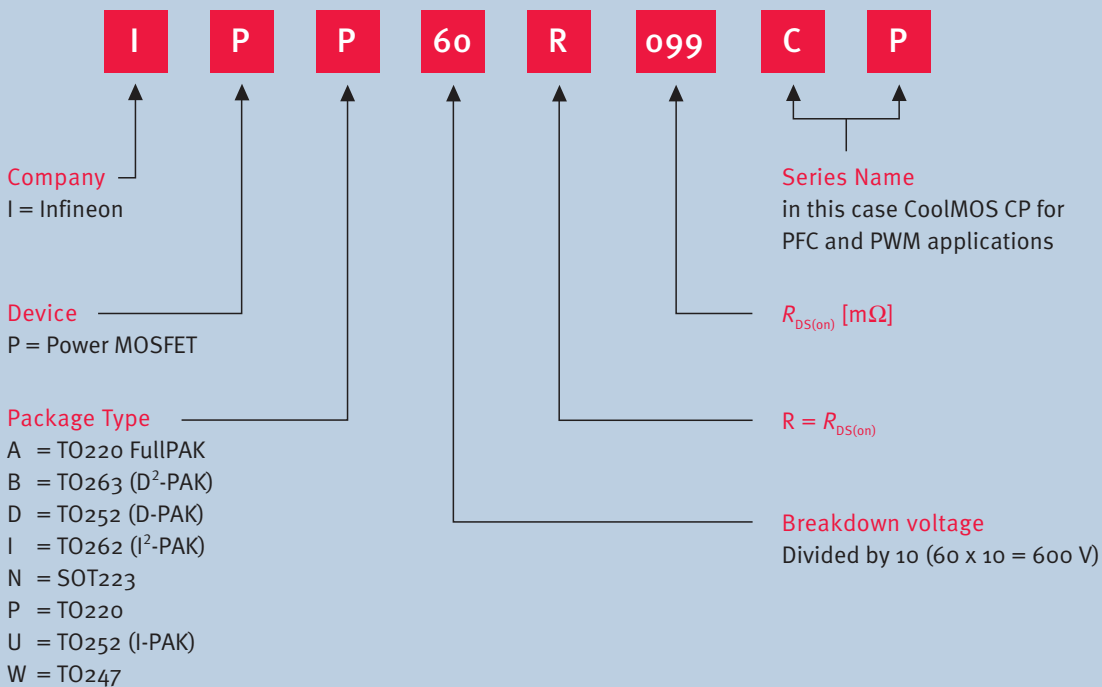
Application Example:  
CoolSET™ for Off-line Switch Mode Power Supplies

# Naming System

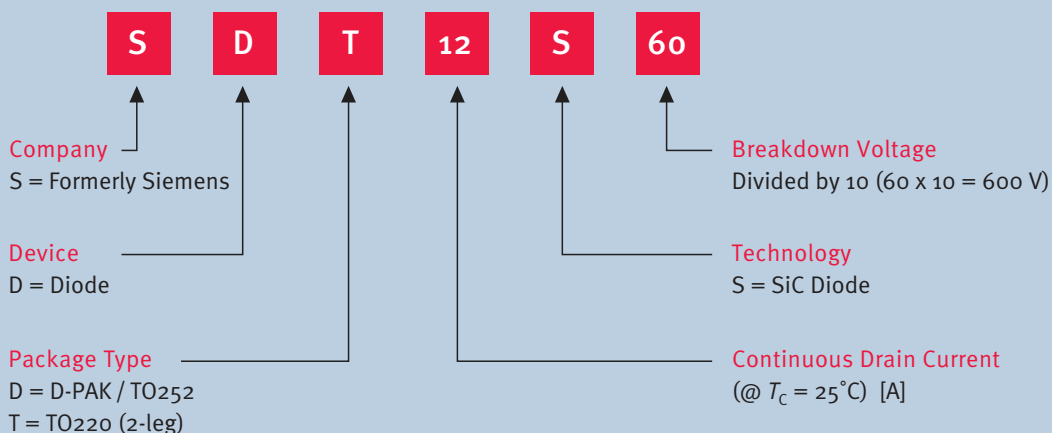
## Power MOSFETs (> 300 V)



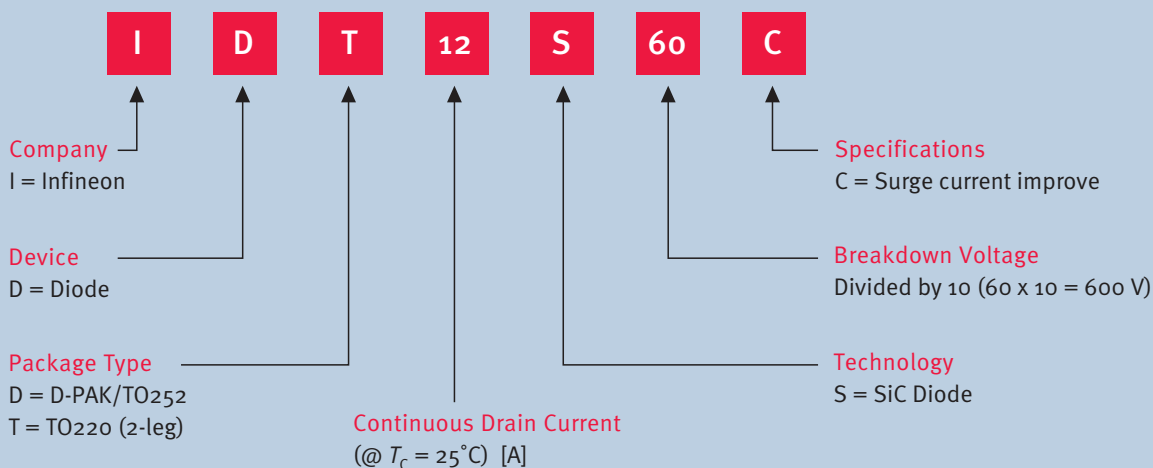
## Power MOSFETs (> 300 V) - CP Generation



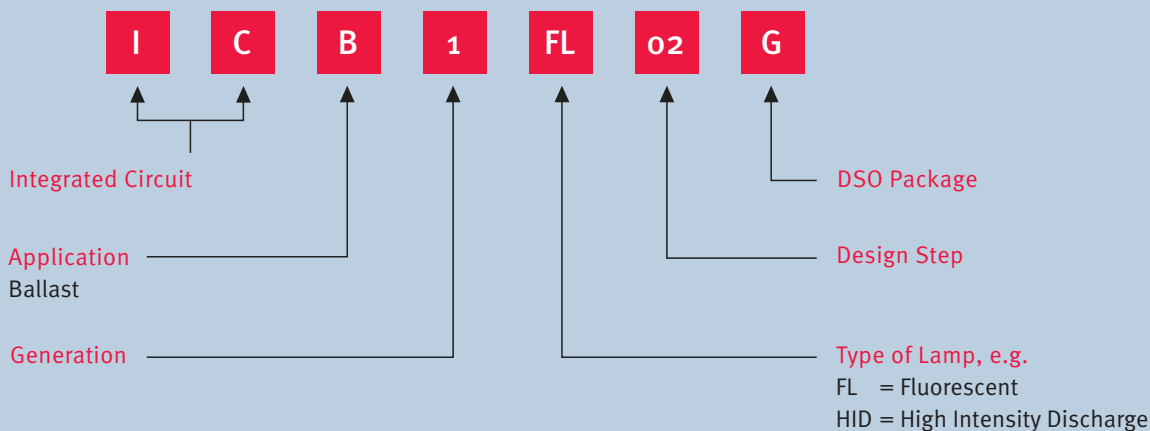
### thinQ!™



### thinQ!™ 2G

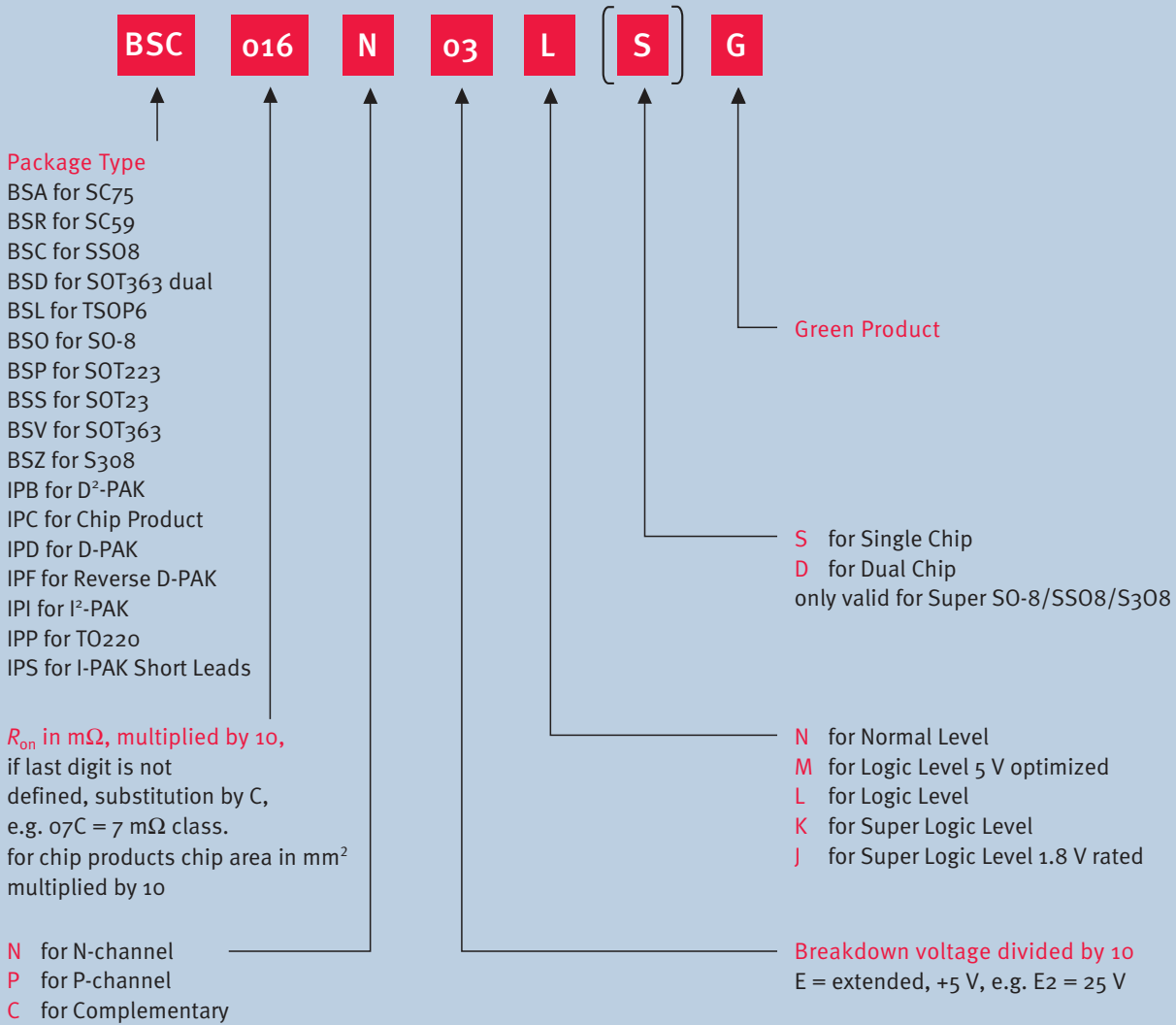


### Lighting ICs

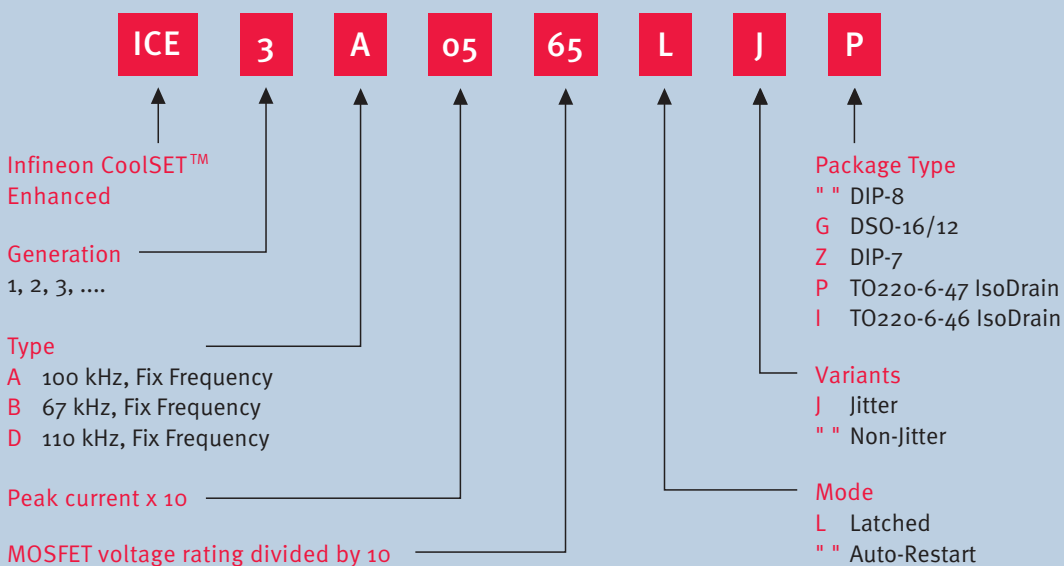


# Naming System

## OptiMOS®



## CoolSET™



## MOSFETS



## TO247

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
500 V	380.0			2.1 ... 3.9	11.6	49.0	SPW12N50C3	CoolMOS™C3
	280.0			2.1 ... 3.9	16.0	66.0	SPW16N50C3	CoolMOS™C3
	199.0			2.5 ... 3.5	17.0	34.0	IPW50R199CP	CoolMOS™CP
	190.0			2.1 ... 3.9	21.0	95.0	SPW21N50C3	CoolMOS™C3
	140.0			2.5 ... 3.5	23.0	48.0	IPW50R140CP	CoolMOS™CP
	110.0			2.1 ... 3.9	32.0	170.0	SPW32N50C3	CoolMOS™C3
	70.0			2.1 ... 3.9	52.0	290.0	SPW52N50C3	CoolMOS™C3
600 V	380.0			3.5 ... 5.5	11.0	41.5	SPW11N60S5	CoolMOS™S5
	380.0			2.1 ... 3.9	11.0	45.0	SPW11N60C3	CoolMOS™C3
	280.0			2.1 ... 3.9	15.0	63.0	SPW15N60C3	CoolMOS™C3
	199.0			2.5 ... 3.5	16.0	33.0	IPW60R199CP	CoolMOS™CP
	190.0			3.5 ... 5.5	20.0	79.0	SPW20N60S5	CoolMOS™S5
	190.0			2.1 ... 3.9	20.7	87.0	SPW20N60C3	CoolMOS™C3
	165.0			2.5 ... 3.5	21.0	39.0	IPW60R165CP	CoolMOS™CP
	160.0			2.1 ... 3.9	24.3	104.9	SPW24N60C3	CoolMOS™C3
	125.0			2.5 ... 3.5	25.0	53.0	IPW60R125CP	CoolMOS™CP
	110.0			2.1 ... 3.9	34.6	150.0	SPW35N60C3	CoolMOS™C3
	99.0			2.5 ... 3.5	31.0	60.0	IPW60R099CP	CoolMOS™CP
	70.0			2.1 ... 3.9	47.0	252.0	SPW47N60C3	CoolMOS™C3
	45.0			2.5 ... 3.5	60.0	150.0	IPW60R045CP	CoolMOS™CP
	440.0			3.0 ... 5.0	11.0	48.0	SPW11N60CFD	CoolMOS™CFD
	330.0			3.0 ... 5.0	15.0	70.0	SPW15N60CFD	CoolMOS™CFD
	220.0			3.0 ... 5.0	20.0	95.0	SPW20N60CFD	CoolMOS™CFD
	186.0			3.0 ... 5.0	24.3	112.0	SPW24N60CFD	CoolMOS™CFD
118.0			3.0 ... 5.0	34.0	163.0	SPW35N60CFD	CoolMOS™CFD	
80.0			3.0 ... 5.0	46.0	248.0	SPW47N60CFD	CoolMOS™CFD	
800 V	450.0			2.1 ... 3.9	11.0	58.0	SPW11N80C3	CoolMOS™C3
	290.0			2.1 ... 3.9	17.0	91.0	SPW17N60C3	CoolMOS™C3

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)

## T0220

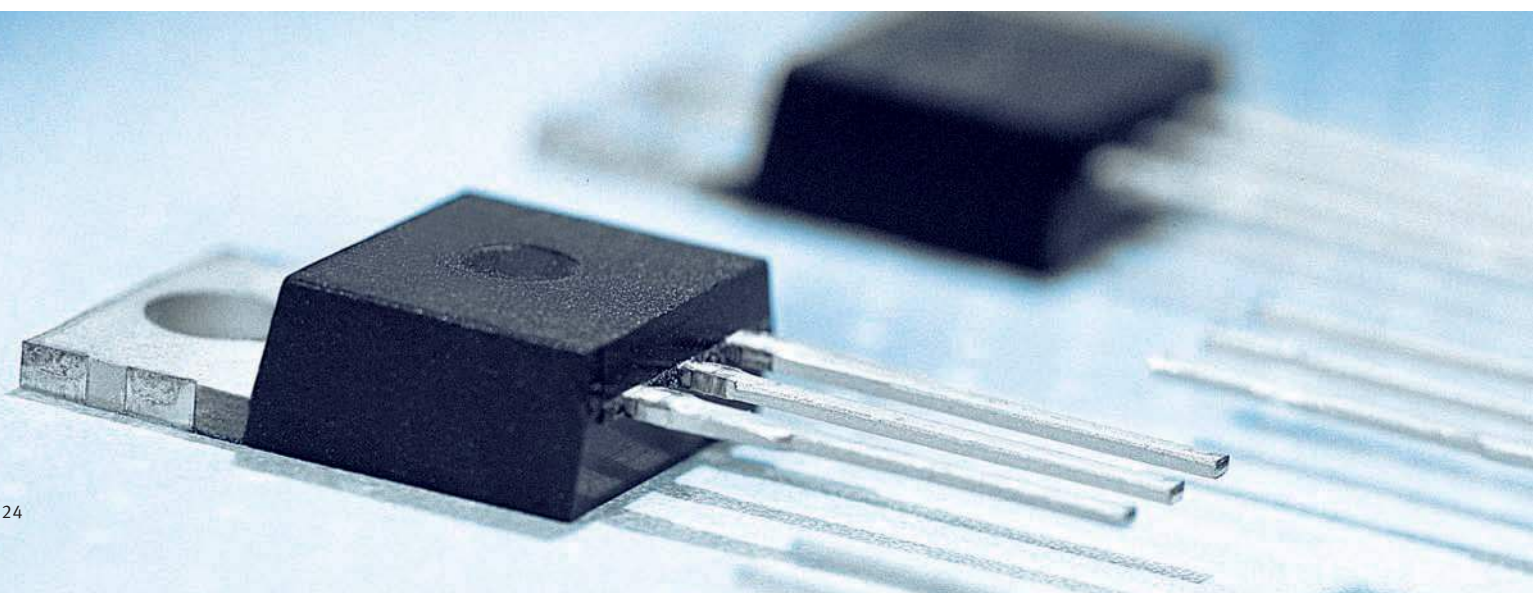


Voltage	$R_{DS(on) max.} [m\Omega]$			$V_{GS(th)} [V]$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 V$	@ $V_{GS} = 4.5 V$	@ $V_{GS} = 2.5 V$					
-100 V	240.0			-4.0 ... -2.1	-15.0	33.4	SPP15P10P G	Planar
	210.0	290.0		-2.0 ... -1.0	-15.5	47.0	SPP15P10PL G <sup>1)</sup>	Planar
-60 V	23.0			-4.0 ... -2.1	-80.0	115.0	SPP80Po6P	Planar
	130.0			-4.0 ... -2.1	-18.6	22.0	SPP18Po6P	Planar
	300.0			-4.0 ... -2.1	-8.8	10.0	SPP08Po6P	Planar
25 V	3.0			1.2 ... 2.0	80.0	43.0	IPP03No3LA	OptiMOS <sup>®2</sup>
	4.2			1.2 ... 2.0	80.0	24.0	IPP04No3LA	OptiMOS <sup>®2</sup>
	4.9			1.2 ... 2.0	80.0	19.0	IPP05No3LA	OptiMOS <sup>®2</sup>
	6.2			1.2 ... 2.0	50.0	16.0	IPP06No3LA	OptiMOS <sup>®2</sup>
	9.2			1.2 ... 2.0	50.0	10.0	IPP09No3LA	OptiMOS <sup>®2</sup>
	11.5			1.2 ... 2.0	30.0	8.2	IPP11No3LA	OptiMOS <sup>®2</sup>
	13.9			1.2 ... 2.0	30.0	7.0	IPP14No3LA	OptiMOS <sup>®2</sup>
30 V	3.1			1.0 ... 2.0	80.0	44.0	IPP03No3LB G	OptiMOS <sup>®2</sup>
	3.4	4.7		1.2 ... 2.2	80.0	25.0	IPP034No3L G	OptiMOS <sup>®3</sup>
	4.2	n.a		1.2 ... 2.0	80.0	20.25 <sup>2)</sup>	IPP042No3L G	OptiMOS <sup>®3</sup>
	3.8			1.2 ... 2.0	80.0	30.0	IPP04No3LB G	OptiMOS <sup>®2</sup>
	5.5	n.a		1.2 ... 2.0	80.0	16.69 <sup>2)</sup>	IPP055No3L G	OptiMOS <sup>®3</sup>
	5.3			1.2 ... 2.0	80.0	19.0	IPP05No3LB G	OptiMOS <sup>®2</sup>
	6.5	9.5		1.0 ... 2.2	50.0	11.3	IPP065No3L G	OptiMOS <sup>®3</sup>
	6.6			1.2 ... 2.0	50.0	19.0	IPP07No3LB G	OptiMOS <sup>®2</sup>
	8.0	n.a		1.2 ... 2.0	40.0	9.69 <sup>2)</sup>	IPP080No3L G	OptiMOS <sup>®3</sup>
	9.6	14.1		1.0 ... 2.2	40.0	7.4	IPP096No3L G	OptiMOS <sup>®3</sup>
	9.9			1.2 ... 2.0	50.0	10.0	IPP10No3LB G	OptiMOS <sup>®2</sup>
	11.4	n.a		1.2 ... 2.0	n.a.	7.31 <sup>2)</sup>	IPP114No3L G	OptiMOS <sup>®3</sup>
	12.8			1.2 ... 2.0	30.0	8.0	IPP13No3LB G	OptiMOS <sup>®2</sup>
	14.7	21.7		1.0 ... 2.2	30.0	4.8	IPP147No3L G	OptiMOS <sup>®3</sup>
15.4			1.2 ... 2.0	30.0	6.0	IPP15No3LB G <sup>1)</sup>	OptiMOS <sup>®2</sup>	

1) Can be mass-produced on customer request

2) Preliminary data

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)







## TO220

Voltage	$R_{DS(on) \max.} [m\Omega]$			$V_{GS(th)} [V]$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 V$	@ $V_{GS} = 4.5 V$	@ $V_{GS} = 2.5 V$					
60 V	4.8			1.2 ... 2.0	100.0	169.0	IPP48No6L G	OptiMOS <sup>®</sup>
	5.0			2.0 ... 4.0	100.0	126.0	IPPo50No6N G	OptiMOS <sup>®</sup>
	6.5			1.2 ... 2.0	80.0	113.0	IPPo65No6L G <sup>1)</sup>	OptiMOS <sup>®</sup>
	7.0			2.0 ... 4.0	80.0	83.0	IPPo70No6N G <sup>1)</sup>	OptiMOS <sup>®</sup>
	7.0			1.2 ... 2.0	80.0	94.0	IPPo70No6L G	OptiMOS <sup>®</sup>
	8.0			2.0 ... 4.0	80.0	70.0	IPPo80No6N G	OptiMOS <sup>®</sup>
	8.5			1.2 ... 2.0	80.0	79.0	IPPo85No6L G	OptiMOS <sup>®</sup>
	9.1			2.0 ... 4.0	80.0	58.0	IPPo91No6N G	OptiMOS <sup>®</sup>
	11.0			1.2 ... 2.0	78.0	59.0	IPPo110No6L G	OptiMOS <sup>®</sup>
	12.0			2.0 ... 4.0	75.0	43.0	IPPo120No6N G	OptiMOS <sup>®</sup>
85 V	4.4			2.0 ... 4.0	100.0	175.0	IPPo4CNE8N G	OptiMOS <sup>®2</sup>
	5.4			2.0 ... 4.0	67.0	49.0	IPPo54NE8N G	OptiMOS <sup>®2</sup>
	6.5			2.0 ... 4.0	53.0	36.0	IPPo6CNE8N G	OptiMOS <sup>®2</sup>
	8.5			2.0 ... 4.0	35.0	23.0	IPPo8CNE8N G	OptiMOS <sup>®2</sup>
	12.4			2.0 ... 4.0	67.0	49.0	IPPo12CNE8N G	OptiMOS <sup>®2</sup>
	16.0			2.0 ... 4.0	53.0	36.0	IPPo16CNE8N G	OptiMOS <sup>®2</sup>
	26.0			2.0 ... 4.0	35.0	23.0	IPPo26CNE8N G	OptiMOS <sup>®2</sup>
100 V	14.0			1.2 ... 2.0	80.0	160.0	SPP/B/I80N10L	Planar
	4.4			2.0 ... 4.0	100.0	175.0	IPPo4CN10N G	OptiMOS <sup>®2</sup>
	5.4			2.0 ... 4.0	100.0	136.0	IPPo5CN10N G	OptiMOS <sup>®2</sup>
	6.5			2.0 ... 4.0	100.0	104.0	IPPo6CN10N G	OptiMOS <sup>®2</sup>
	8.5			2.0 ... 4.0	95.0	75.0	IPPo8CN10N G	OptiMOS <sup>®2</sup>
	12.9			2.0 ... 4.0	67.0	49.0	IPPo12CN10N G	OptiMOS <sup>®2</sup>
	16.5			2.0 ... 4.0	53.0	36.0	IPPo16CN10N G	OptiMOS <sup>®2</sup>
	26.0			2.0 ... 4.0	35.0	23.0	IPPo26CN10N G	OptiMOS <sup>®2</sup>
	35.0			2.0 ... 4.0	27.0	18.0	IPPo35CN10N G	OptiMOS <sup>®2</sup>
	50.0			2.0 ... 4.0	20.0	12.0	IPPo50CN10N G	OptiMOS <sup>®2</sup>
	80.0			2.0 ... 4.0	13.0	8.0	IPPo80CN10N G	OptiMOS <sup>®2</sup>
500 V	950.0			2.1 ... 3.9	4.5	22.0	SPP04N50C3	CoolMOS <sup>TM</sup> C3
	600.0			2.1 ... 3.9	7.6	32.0	SPP08N50C3	CoolMOS <sup>TM</sup> C3
	520.0			2.5 ... 3.5	7.0	13.0	IPPo50R520CP	CoolMOS <sup>TM</sup> CP
	399.0			2.5 ... 3.5	9.0	17.0	IPPo50R399CP	CoolMOS <sup>TM</sup> CP
	380.0			2.1 ... 3.9	11.6	49.0	SPP12N50C3	CoolMOS <sup>TM</sup> C3
	350.0			2.5 ... 3.5	10.0	19.0	IPPo50R350CP	CoolMOS <sup>TM</sup> CP
	299.0			2.5 ... 3.5	12.0	23.0	IPPo50R299CP	CoolMOS <sup>TM</sup> CP
	280.0			2.1 ... 3.9	16.0	66.0	SPP16N50C3	CoolMOS <sup>TM</sup> C3
	250.0			2.5 ... 3.5	13.0	27.0	IPPo50R250CP	CoolMOS <sup>TM</sup> CP
	199.0			2.5 ... 3.5	17.0	34.0	IPPo50R199CP	CoolMOS <sup>TM</sup> CP
	190.0			2.1 ... 3.9	21.0	95.0	SPP21N50C3	CoolMOS <sup>TM</sup> C3
	140.0			2.5 ... 3.5	23.0	48.0	IPPo50R140CP	CoolMOS <sup>TM</sup> CP

1) Can be mass-produced on customer request

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# T0220



Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
600 V	3000.0			2.1 ... 3.9	1.8	9.5	SPP02N60C3	CoolMOS™C3
	3000.0			3.5 ... 5.5	1.8	7.3	SPP02N60S5	CoolMOS™S5
	1400.0			2.1 ... 3.9	3.2	13.0	SPP03N60C3	CoolMOS™C3
	1400.0			3.5 ... 5.5	3.2	12.4	SPP03N60S5	CoolMOS™S5
	950.0			2.1 ... 3.9	4.5	19.0	SPP04N60C3	CoolMOS™C3
	950.0			3.5 ... 5.5	4.5	17.6	SPP04N60S5	CoolMOS™S5
	750.0			2.1 ... 3.9	6.2	24.0	SPP06N60C3	CoolMOS™C3
	600.0			2.1 ... 3.9	7.3	21.0	SPP07N60C3	CoolMOS™C3
	600.0			3.5 ... 5.5	7.3	27.0	SPP07N60S5	CoolMOS™S5
	385.0			2.5 ... 3.5	9.0	17.0	IPP60R385CP	CoolMOS™CP
	380.0			3.5 ... 5.5	11.0	41.5	SPP11N60S5	CoolMOS™S5
	299.0			2.5 ... 3.5	11.0	22.0	IPP60R299CP	CoolMOS™CP
	280.0			2.1 ... 3.9	15.0	63.0	SPP15N60C3	CoolMOS™C3
	280.0			2.1 ... 3.9	11.0	45.0	SPP11N60C3	CoolMOS™C3
	199.0			2.5 ... 3.5	16.0	33.0	IPP60R199CP	CoolMOS™CP
	190.0			2.1 ... 3.9	20.7	87.0	SPP20N60C3	CoolMOS™C3
	190.0			3.5 ... 5.5	20.7	79.0	SPP20N60S5	CoolMOS™S5
	165.0			2.5 ... 3.5	21.0	39.0	IPP60R165CP	CoolMOS™CP
	160.0			2.1 ... 3.9	24.3	104.9	SPP24N60C3	CoolMOS™C3
	125.0			2.5 ... 3.5	25.0	53.0	IPP60R125CP	CoolMOS™CP
99.0			2.5 ... 3.5	31.0	60.0	IPP60R099CP	CoolMOS™CP	
720.0			3.0 ... 5.0	7.2	33.0	SPP07N60CFD	CoolMOS™CFD	
440.0			3.0 ... 5.0	11.0	48.0	SPP11N60CFD	CoolMOS™CFD	
330.0			3.0 ... 5.0	15.0	70.0	SPP15N60CFD	CoolMOS™CFD	
220.0			3.0 ... 5.0	20.0	95.0	SPP20N60CFD	CoolMOS™CFD	
650 V	600.0			2.1 ... 3.9	7.3	21.0	SPP07N65C3	CoolMOS™C3
	380.0			2.1 ... 3.9	11.0	45.0	SPP11N65C3	CoolMOS™C3
	190.0			2.1 ... 3.9	20.7	87.0	SPP20N65C3	CoolMOS™C3
800 V	2700.0			2.1 ... 3.9	2.0	9.0	SPP02N80C3	CoolMOS™C3
	1300.0			2.1 ... 3.9	4.0	20.0	SPP04N80C3	CoolMOS™C3
	900.0			2.1 ... 3.9	6.0	27.0	SPP06N80C3	CoolMOS™C3
	650.0			2.1 ... 3.9	8.0	40.0	SPP08N80C3	CoolMOS™C3
	450.0			2.1 ... 3.9	11.0	50.0	SPP11N80C3	CoolMOS™C3
	290.0			2.1 ... 3.9	17.0	91.0	SPP17N80C3	CoolMOS™C3

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## TO220 FullPAK

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
500 V	950.0			2.1 ... 3.9	4.5	22.0	SPA04N50C3	CoolMOS™C3
	600.0			2.1 ... 3.9	7.6	32.0	SPA08N50C3	CoolMOS™C3
	520.0			2.5 ... 3.5	7.0	13.0	IPA50R520CP	CoolMOS™CP
	280.0			2.1 ... 3.9	16.0	66.0	SPA16N50C3	CoolMOS™C3
	399.0			2.5 ... 3.5	9.0	17.0	IPA50R399CP	CoolMOS™CP
	380.0			2.1 ... 3.9	11.6	49.0	SPA12N50C3	CoolMOS™C3
	350.0			2.5 ... 3.5	10.0	19.0	IPA50R350CP	CoolMOS™CP
	299.0			2.5 ... 3.5	12.0	23.0	IPA50R299CP	CoolMOS™CP
	250.0			2.5 ... 3.5	13.0	27.0	IPA50R250CP	CoolMOS™CP
	199.0			2.5 ... 3.5	17.0	34.0	IPA50R199CP	CoolMOS™CP
	190.0			2.1 ... 3.9	21.0	95.0	SPA21N50C3	CoolMOS™C3
	140.0			2.5 ... 3.5	23.0	48.0	IPA50R140CP	CoolMOS™CP
600 V	1400.0			2.1 ... 3.9	3.2	13.0	SPA03N60C3	CoolMOS™C3
	950.0			2.1 ... 3.9	4.5	19.0	SPA04N60C3	CoolMOS™C3
	750.0			2.1 ... 3.9	6.2	24.0	SPA06N60C3	CoolMOS™C3
	600.0			2.1 ... 3.9	7.3	21.0	SPA07N60C3	CoolMOS™C3
	385.0			2.5 ... 3.5	9.0	17.0	IPA60R385CP	CoolMOS™CP
	380.0			2.1 ... 3.9	11.0	45.0	SPA11N60C3	CoolMOS™C3
	280.0			2.1 ... 3.9	15.0	63.0	SPA15N60C3	CoolMOS™C3
	299.0			2.5 ... 3.5	11.0	22.0	IPA60R299CP	CoolMOS™CP
	199.0			2.5 ... 3.5	16.0	33.0	IPA60R199CP	CoolMOS™CP
	190.0			2.1 ... 3.9	20.7	87.0	SPA20N60C3	CoolMOS™C3
	165.0			2.5 ... 3.5	21.0	39.0	IPA60R165CP	CoolMOS™CP
	125.0			2.5 ... 3.5	25.0	53.0	IPA60R125CP	CoolMOS™CP
	620.0			3.0 ... 5.0	7.2	33.0	SPA07N60CFD	CoolMOS™CFD
	440.0			3.0 ... 5.0	11.0	48.0	SPA11N60CFD	CoolMOS™CFD
	330.0			3.0 ... 5.0	15.0	70.0	SPA15N60CFD	CoolMOS™CFD
220.0			3.0 ... 5.0	20.0	95.0	SPA20N60CFD	CoolMOS™CFD	
650 V	600.0			2.1 ... 3.9	7.3	21.0	SPA07N65C3	CoolMOS™C3
	380.0			2.1 ... 3.9	11.0	45.0	SPA11N65C3	CoolMOS™C3
	190.0			2.1 ... 3.9	20.7	87.0	SPA20N65C3	CoolMOS™C3
800 V	2700.0			2.1 ... 3.9	2.0	9.0	SPA02N80C3	CoolMOS™C3
	1300.0			2.1 ... 3.9	4.0	20.0	SPA04N80C3	CoolMOS™C3
	900.0			2.1 ... 3.9	6.0	27.0	SPA06N80C3	CoolMOS™C3
	650.0			2.1 ... 3.9	8.0	40.0	SPA08N80C3	CoolMOS™C3
	450.0			2.1 ... 3.9	11.0	50.0	SPA11N80C3	CoolMOS™C3
	290.0			2.1 ... 3.9	17.0	91.0	SPA17N80C3	CoolMOS™C3

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)

## D<sup>2</sup>-PAK (TO263)



Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-60 V	23.0			-4.0 ... -2.1	-80.0	115.0	SPB80Po6P	Planar
	130.0			-4.0 ... -2.1	-18.6	22.0	SPB18Po6P	Planar
	300.0			-4.0 ... -2.1	-8.8	10.0	SPB08Po6P	Planar
25 V	2.7			1.2 ... 2.0	80.0	43.0	IPB03No3LA G	OptiMOS <sup>®2</sup>
	3.9			1.2 ... 2.0	80.0	24.0	IPB04No3LA G	OptiMOS <sup>®2</sup>
	4.6			1.2 ... 2.0	80.0	19.0	IPB05No3LA G	OptiMOS <sup>®2</sup>
	5.9			1.2 ... 2.0	50.0	16.0	IPB06No3LA G	OptiMOS <sup>®2</sup>
	6.2			1.2 ... 2.0	50.0	14.0	IPBH6No3LA G	OptiMOS <sup>®2</sup>
	8.9			1.2 ... 2.0	50.0	10.0	IPB09No3LA G	OptiMOS <sup>®2</sup>
	11.2			1.2 ... 2.0	30.0	8.2	IPB11No3LA G	OptiMOS <sup>®2</sup>
	13.6			1.2 ... 2.0	30.0	7.0	IPB14No3LA G	OptiMOS <sup>®2</sup>
30 V	2.4	n.a.		n.a.	n.a.	n.a.	IPB024No3L G	OptiMOS <sup>®3</sup>
	2.8			1.2 ... 2.0	80.0	44.0	IPB03No3LB G	OptiMOS <sup>®2</sup>
	3.4	4.7		1.0 ... 2.2	90.0	25.0	IPB034No3L G	OptiMOS <sup>®3</sup>
	3.8			1.2 ... 2.0	80.0	30.0	IPB04No3LB G	OptiMOS <sup>®2</sup>
	4.2	n.a.		1.0 ... 2.2	80.0	20.25 <sup>2)</sup>	IPB042No3L G	OptiMOS <sup>®3</sup>
	5.5	5.5		1.2 ... 2.0	80.0	16.69 <sup>2)</sup>	IPB055No3L G	OptiMOS <sup>®3</sup>
	5.0			1.2 ... 2.0	80.0	19.0	IPB05No3LB G	OptiMOS <sup>®2</sup>
	6.5	6.5		1.0 ... 2.2	50.0	11.3	IPB065No3L G	OptiMOS <sup>®3</sup>
	6.3			1.2 ... 2.0	50.0	16.0	IPB06No3LB G	OptiMOS <sup>®2</sup>
	8.0	n.a.		1.2 ... 2.0	40.0	9.69 <sup>2)</sup>	IPB080No3L G	OptiMOS <sup>®3</sup>
	9.6	14.1		1.0 ... 2.2	40.0	7.4	IPB096No3L G	OptiMOS <sup>®3</sup>
	9.6			1.2 ... 2.0	50.0	10.0	IPB10No3LB G	OptiMOS <sup>®2</sup>
	11.4	n.a.		1.2 ... 2.0	30.0	7.31 <sup>2)</sup>	IPB114No3LB G	OptiMOS <sup>®3</sup>
12.5			1.2 ... 2.0	30.0	8.0	IPB13No3LB G	OptiMOS <sup>®2</sup>	
14.7	21.7		1.0 ... 2.2	30.0	4.8	IPB147No3L G	OptiMOS <sup>®3</sup>	
60 V	4.5			1.2 ... 2.0	100.0	169.0	IPB048No6L G	OptiMOS <sup>®</sup>
	4.7			2.0 ... 4.0	100.0	126.0	IPB050No6N G	OptiMOS <sup>®</sup>
	6.3			1.2 ... 2.0	80.0	113.0	IPB065No6L G <sup>1)</sup>	OptiMOS <sup>®</sup>
	6.7			2.0 ... 4.0	80.0	83.0	IPB070No6N G <sup>1)</sup>	OptiMOS <sup>®</sup>
	6.7			1.2 ... 2.0	80.0	94.0	IPB070No6L G	OptiMOS <sup>®</sup>
	7.7			2.0 ... 4.0	80.0	70.0	IPB080No6N G	OptiMOS <sup>®</sup>
	8.2			1.2 ... 2.0	80.0	79.0	IPB085No6L G	OptiMOS <sup>®</sup>
	8.8			2.0 ... 4.0	80.0	58.0	IPB091No6N G	OptiMOS <sup>®</sup>
	10.7			1.2 ... 2.0	78.0	59.0	IPB110No6L G	OptiMOS <sup>®</sup>
11.7			2.0 ... 4.0	75.0	43.0	IPB120No6N G	OptiMOS <sup>®</sup>	
85 V	4.1			2.0 ... 4.0	100.0	175.0	IPB04CNE8N G	OptiMOS <sup>®2</sup>
	5.1			2.0 ... 4.0	100.0	136.0	IPB051NE8N G	OptiMOS <sup>®2</sup>
	6.2			2.0 ... 4.0	100.0	104.0	IPB06CNE8N G	OptiMOS <sup>®2</sup>
	8.2			2.0 ... 4.0	95.0	75.0	IPB08CNE8N G	OptiMOS <sup>®2</sup>
	12.6			2.0 ... 4.0	67.0	49.0	IPB12CNE8N G	OptiMOS <sup>®2</sup>
	16.2			2.0 ... 4.0	53.0	36.0	IPB16CNE8N G	OptiMOS <sup>®2</sup>
	26.0			2.0 ... 4.0	35.0	23.0	IPB26CNE8N G	OptiMOS <sup>®2</sup>

1) Can be mass-produced on customer request

2) Preliminary data

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)

D<sup>2</sup>-PAK (TO263)

Voltage	$R_{DS(on) \text{ max. [m}\Omega\text{]}$			$V_{GS(th) [V]}$	$I_b [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
100 V	4.1			2.0 ... 4.0	100.0	175.0	IPB04CN10N G	OptiMOS <sup>®2</sup>
	5.1			2.0 ... 4.0	100.0	136.0	IPB05CN10N G	OptiMOS <sup>®2</sup>
	6.2			2.0 ... 4.0	100.0	104.0	IPB06CN10N G	OptiMOS <sup>®2</sup>
	8.2			2.0 ... 4.0	95.0	75.0	IPB08CN10N G	OptiMOS <sup>®2</sup>
	12.6			2.0 ... 4.0	67.0	49.0	IPB12CN10N G	OptiMOS <sup>®2</sup>
	16.2			2.0 ... 4.0	53.0	36.0	IPB16CN10N G	OptiMOS <sup>®2</sup>
	26.0			2.0 ... 4.0	35.0	23.0	IPB26CN10N G	OptiMOS <sup>®2</sup>
	35.0			2.0 ... 4.0	27.0	8.0	IPB35CN10N G	OptiMOS <sup>®2</sup>
	50.0			2.0 ... 4.0	20.0	12.0	IPB50CN10N G	OptiMOS <sup>®2</sup>
	80.0			2.0 ... 4.0	13.0	8.0	IPB80CN10N G	OptiMOS <sup>®2</sup>
	26.0			1.2 ... 2.0	47.0	90.0	SPP/B/l47N10L	Planar
	33.0			2.0 ... 4.0	47.0	70.0	SPP/B/l47N10	Planar
	44.0			2.0 ... 4.0	35.0	49.0	SPP/B/l35N10	Planar
	80.0			2.0 ... 4.0	21.0	28.9	SPP/B/l21N10	Planar
	154.0			1.2 ... 2.0	10.3	17.7	SPP/B/l10N10L	Planar
170.0			2.0 ... 4.0	10.3	14.6	SPP/B/l10N10	Planar	
200 V	130.0			2.0 ... 4.0	21.0	64.0	BUZ30A	Planar
	200.0			2.0 ... 4.0	14.5	50.0	BUZ31	Planar
	400.0			2.0 ... 4.0	9.5	24.0	BUZ32	Planar
500 V	950.0			2.1 ... 3.9	4.5	22.0	SPB04N50C3	CoolMOST <sup>™C3</sup>
	380.0			2.1 ... 3.9	11.6	49.0	SPB12N50C3	CoolMOST <sup>™C3</sup>
	299.0			2.5 ... 3.5	12.0	23.0	IPB50R299CP	CoolMOST <sup>™CP</sup>
	280.0			2.1 ... 3.9	16.0	66.0	SPB16N50C3	CoolMOST <sup>™C3</sup>
	250.0			2.5 ... 3.5	13.0	27.0	IPB50R250CP	CoolMOST <sup>™CP</sup>
	199.0			2.5 ... 3.5	17.0	34.0	IPB50R199CP	CoolMOST <sup>™CP</sup>
	190.0			2.1 ... 3.9	21.0	95.0	SPB21N50C3	CoolMOST <sup>™C3</sup>
	140.0			2.5 ... 3.5	23.0	48.0	IPB50R140CP	CoolMOST <sup>™CP</sup>
600 V	3000.0			3.5 ... 5.5	1.8	7.3	SPB02N60S5	CoolMOST <sup>™S5</sup>
	3000.0			2.1 ... 3.9	1.8	9.5	SPB02N60C3	CoolMOST <sup>™C3</sup>
	1400.0			3.5 ... 5.5	3.2	12.4	SPB03N60S5	CoolMOST <sup>™S5</sup>
	1400.0			2.1 ... 3.9	3.2	13.0	SPB03N60C3	CoolMOST <sup>™C3</sup>
	950.0			3.5 ... 5.5	4.5	17.6	SPB04N60S5	CoolMOST <sup>™S5</sup>
	950.0			2.1 ... 3.9	4.5	19.0	SPB04N60C3	CoolMOST <sup>™C3</sup>
	600.0			3.5 ... 5.5	7.3	27.0	SPB07N60S5	CoolMOST <sup>™S5</sup>
	600.0			2.1 ... 3.9	7.3	21.0	SPB07N60C3	CoolMOST <sup>™C3</sup>
	380.0			3.5 ... 5.5	11.0	41.5	SPB11N60S5	CoolMOST <sup>™S5</sup>
	380.0			2.1 ... 3.9	11.0	45.0	SPB11N60C3	CoolMOST <sup>™C3</sup>
	190.0			3.5 ... 5.5	20.7	79.0	SPB20N60S5	CoolMOST <sup>™S5</sup>
	190.0			2.1 ... 3.9	20.7	87.0	SPB20N60C3	CoolMOST <sup>™C3</sup>
	165.0			2.5 ... 3.5	21.0	39.0	IPB60R165CP	CoolMOST <sup>™CP</sup>
	99.0			2.5 ... 3.5	31.0	60.0	IPB60R099CP	CoolMOST <sup>™CP</sup>
800 V	290.0			2.1 ... 3.9	17.0	91.0	SPB17N80C3	CoolMOST <sup>™C3</sup>

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)



## I<sup>2</sup> PAK (TO262)

Voltage	R <sub>DS(on) max.</sub> [mΩ]			V <sub>GS(th)</sub> [V]	I <sub>D</sub> [A]	typ. Q <sub>g</sub> [nC]	Type	Technology
	@ V <sub>GS</sub> = 10 V	@ V <sub>GS</sub> = 4.5 V	@ V <sub>GS</sub> = 2.5 V					
25 V	3.0			1.2 ... 2.0	80.0	43.0	IPl03No3LA	OptiMOS <sup>®</sup> 2
	4.2			1.2 ... 2.0	80.0	24.0	IPl04No3LA	OptiMOS <sup>®</sup> 2
	4.9			1.2 ... 2.0	80.0	19.0	IPl05No3LA	OptiMOS <sup>®</sup> 2
	6.2			1.2 ... 2.0	50.0	16.0	IPl06No3LA	OptiMOS <sup>®</sup> 2
	9.2			1.2 ... 2.0	50.0	10.0	IPl09No3LA	OptiMOS <sup>®</sup> 2
	11.5			1.2 ... 2.0	30.0	8.2	IPl11No3LA	OptiMOS <sup>®</sup> 2
	13.9			1.2 ... 2.0	30.0	7.0	IPl14No3LA	OptiMOS <sup>®</sup> 2
30 V	3.1			1.2 ... 2.0	80.0	44.0	IPl03No3LB G <sup>1)</sup>	OptiMOS <sup>®</sup> 2
	3.8			1.2 ... 2.0	80.0	30.0	IPl04No3LB G <sup>1)</sup>	OptiMOS <sup>®</sup> 2
	5.3			1.2 ... 2.0	80.0	19.0	IPl05No3LB G <sup>1)</sup>	OptiMOS <sup>®</sup> 2
	6.6			1.2 ... 2.0	50.0	19.0	IPl07No3LB G <sup>1)</sup>	OptiMOS <sup>®</sup> 2
	9.9			1.2 ... 2.0	50.0	10.0	IPl10No3LB G <sup>1)</sup>	OptiMOS <sup>®</sup> 2
	12.8			1.2 ... 2.0	30.0	8.0	IPl13No3LB G <sup>1)</sup>	OptiMOS <sup>®</sup> 2
	15.4			1.2 ... 2.0	30.0	6.0	IPl15No3LB G <sup>2)</sup>	OptiMOS <sup>®</sup> 2
60 V	7.0			2.0 ... 4.0	80.0	83.0	IPl07oNo6N G <sup>1)</sup>	OptiMOS <sup>®</sup>
85 V	4.4			2.0 ... 4.0	100.0	175.0	IPl04CNE8N G	OptiMOS <sup>®</sup>
	5.4			2.0 ... 4.0	67.0	49.0	IPl054NE8N G	OptiMOS <sup>®</sup>
	6.5			2.0 ... 4.0	100.0	104.0	IPl06CNE8N G	OptiMOS <sup>®</sup>
	8.5			2.0 ... 4.0	95.0	75.0	IPl08CNE8N G	OptiMOS <sup>®</sup>
	12.9			2.0 ... 4.0	67.0	49.0	IPl12CNE8N G	OptiMOS <sup>®</sup>
	16.5			2.0 ... 4.0	53.0	36.0	IPl16CNE8N G	OptiMOS <sup>®</sup>
	26.0			2.0 ... 4.0	35.0	23.0	IPl26CNE8N G	OptiMOS <sup>®</sup>
100 V	4.4			2.0 ... 4.0	100.0	175.0	IPl04CN1oN G	OptiMOS <sup>®</sup> 2
	5.4			2.0 ... 4.0	100.0	136.0	IPl05CN1oN G	OptiMOS <sup>®</sup> 2
	6.5			2.0 ... 4.0	100.0	104.0	IPl06CN1oN G	OptiMOS <sup>®</sup> 2
	8.5			2.0 ... 4.0	95.0	75.0	IPl08CN1oN G	OptiMOS <sup>®</sup> 2
	12.9			2.0 ... 4.0	67.0	49.0	IPl12CN1oN G	OptiMOS <sup>®</sup> 2
	16.5			2.0 ... 4.0	53.0	36.0	IPl16CN1oN G	OptiMOS <sup>®</sup> 2
	26.0			2.0 ... 4.0	35.0	23.0	IPl26CN1oN G	OptiMOS <sup>®</sup> 2
	35.0			2.0 ... 4.0	27.0	18.0	IPl35CN1oN G	OptiMOS <sup>®</sup> 2
	50.0			2.0 ... 4.0	20.0	12.0	IPl5oCN1oN G	OptiMOS <sup>®</sup> 2
	80.0			2.0 ... 4.0	13.0	8.0	IPl8oCN1oN G	OptiMOS <sup>®</sup> 2

1) Can be mass-produced on customer request

2) 5-Leg

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)



## I<sup>2</sup> PAK (TO262)

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
200 V	200.0			2.1 ... 4.0	14.5	50.0	BUZ31	Planar
	400.0			2.1 ... 4.0	7.0	24.0	BUZ73	Planar
	600.0			2.1 ... 4.0	5.5	24.0	BUZ73A	Planar
500 V	600.0			2.1 ... 3.9	7.6	32.0	SPI08N50C3	CoolMOS™C3
	399.0			2.5 ... 3.5	9.0	17.0	IPI50R399CP	CoolMOS™CP
	380.0			2.1 ... 3.9	11.6	49.0	SPI12N50C3	CoolMOS™C3
	350.0			2.5 ... 3.5	10.0	19.0	IPI50R350CP	CoolMOS™CP
	280.0			2.1 ... 3.9	16.0	66.0	SPI16N50C3	CoolMOS™C3
	190.0			2.1 ... 3.9	21.0	95.0	SPI21N50C3	CoolMOS™C3
600 V	600.0			3.5 ... 5.5	7.3	27.0	SPI07N60S5	CoolMOS™S5
	600.0			2.1 ... 3.9	7.3	21.0	SPI07N60C3	CoolMOS™C3
	385.0			2.5 ... 3.5	9.0	17.0	IPI60R385CP	CoolMOS™CP
	380.0			3.5 ... 5.5	11.0	41.5	SPI11N60S5	CoolMOS™S5
	380.0			2.1 ... 3.9	11.0	45.0	SPI11N60C3	CoolMOS™C3
	299.0			2.5 ... 3.5	11.0	22.0	IPI60R299CP	CoolMOS™CP
	280.0			2.1 ... 3.9	15.0	63.0	SPI15N60C3	CoolMOS™C3
	199.0			2.5 ... 3.5	16.0	33.0	IPI60R199CP	CoolMOS™CP
	190.0			2.1 ... 3.9	20.7	87.0	SPI20N60C3	CoolMOS™C3
650 V	600.0			2.1 ... 3.9	7.3	21.0	SPI07N65C3	CoolMOS™C3
	380.0			2.1 ... 3.9	11.0	45.0	SPI11N65C3	CoolMOS™C3
	190.0			2.1 ... 3.9	20.7	87.0	SPI20N65C3	CoolMOS™C3
800 V	650.0			2.1 ... 3.9	8.0	40.0	SPI08N80C3	CoolMOS™C3

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)





## D-PAK (TO252)

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-100 V	240.0			-4.0 ... -2.1	-15.0	33.4	SPD15P10P G	Planar
	210.0	290.0		-2.0 ... -1.0	-15.5	47.0	SPD15P10PL G	Planar
	1000.0			-4.0 ... -2.1	-4.0	9.1	SPD04P10P G	Planar
	850.0	1050.0		-2.0 ... -1.0	-4.2	12.0	SPD04P10PL G	Planar
-60 V	75.0			-4.0 ... -2.1	-30.0	32.0	SPD30Po6P	Planar
	130.0			-4.0 ... -2.1	-18.6	22.0	SPD18Po6P	Planar
	250.0	400.0		-2.0 ... -1.0	-9.7	14.0	SPD09Po6P	Planar
	300.0			-4.0 ... -2.1	-8.8	10.0	SPD08Po6P	Planar
-30 V	7.0	13.0		-2.0 ... -1.0	-50.0	-119.0	SPD50Po3L G <sup>2)</sup>	OptiMOS <sup>®</sup> 2
25 V	3.2			1.2 ... 2.0	90.0	31.0	IPD03No3LA G	OptiMOS <sup>®</sup> 2
	4.2			1.2 ... 2.0	90.0	19.0	IPDH4No3LA G	OptiMOS <sup>®</sup> 2
	3.8			1.2 ... 2.0	50.0	31.0	IPD04No3LA G	OptiMOS <sup>®</sup> 2
	5.2			1.2 ... 2.0	50.0	17.0	IPDH5No3LA G	OptiMOS <sup>®</sup> 2
	5.1			1.2 ... 2.0	50.0	19.0	IPD05No3LA G	OptiMOS <sup>®</sup> 2
	5.7			1.2 ... 2.0	50.0	17.0	IPD06No3LA G	OptiMOS <sup>®</sup> 2
	6.0			1.2 ... 2.0	50.0	14.0	IPDH6No3LA G	OptiMOS <sup>®</sup> 2
	8.6			1.2 ... 2.0	50.0	10.0	IPD09No3LA G	OptiMOS <sup>®</sup> 2
	9.2			1.2 ... 2.0	30.0	8.2	IPDH9No3LA G	OptiMOS <sup>®</sup> 2
	10.4			1.2 ... 2.0	30.0	8.2	IPD10No3LA G	OptiMOS <sup>®</sup> 2
12.8			1.2 ... 2.0	30.0	6.3	IPD13No3LA G	OptiMOS <sup>®</sup> 2	
30 V	2.3	n.a.		n.a.	n.a.	n.a.	IPD023No3L G <sup>4)</sup>	OptiMOS <sup>®</sup> 3
	3.1	4.4		1.0 ... 2.2	90.0	25.0	IPD031No3L G	OptiMOS <sup>®</sup> 3
	3.3			1.2 ... 2.0	90.0	30.0	IPD03No3LB G	OptiMOS <sup>®</sup> 2
	4.0	n.a.		1.2 ... 2.0	50.0	20.25 <sup>3)</sup>	IPD040No3L G	OptiMOS <sup>®</sup> 3
	4.1			1.2 ... 2.0	50.0	16.69 <sup>3)</sup>	IPD04No3LB G	OptiMOS <sup>®</sup> 2
	5.0	n.a.		1.2 ... 2.0	50.0	11.3 <sup>3)</sup>	IPD050No3L G	OptiMOS <sup>®</sup> 3
	4.8			1.2 ... 2.0	90.0	19.0	IPD05No3LB G	OptiMOS <sup>®</sup> 2
	6.0	9.0		1.0 ... 2.2	50.0	11.3	IPD060No3L G	OptiMOS <sup>®</sup> 3
	6.1			1.2 ... 2.0	50.0	16.0	IPD06No3LB G	OptiMOS <sup>®</sup> 2
	7.5	n.a.		1.2 ... 2.0	n.a.	9.7 <sup>3)</sup>	IPD075No3L G	OptiMOS <sup>®</sup> 3
	9.0	13.5		1.0 ... 2.2	40.0	7.4	IPD090No3L G	OptiMOS <sup>®</sup> 3
	9.1			1.2 ... 2.0	50.0	10.0	IPD09No3LB G	OptiMOS <sup>®</sup> 2
	10.5	n.a.		1.0 ... 2.2	30.0	7.32 <sup>3)</sup>	IPD105No3L G	OptiMOS <sup>®</sup> 3
	11.6			1.2 ... 2.0	30.0	8.0	IPD12No3LB G	OptiMOS <sup>®</sup> 2
	13.5	20.5		1.0 ... 2.2	30.0	4.8	IPD135No3L G	OptiMOS <sup>®</sup> 3
14.3			1.2 ... 2.0	30.0	6.0	IPD14No3LB G <sup>1)</sup>	OptiMOS <sup>®</sup> 2	

1) Can be mass-produced on customer request

2) 5-Leg

3) Preliminary data

4) Coming 2007

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)





## D-PAK (TO252)

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
60 V	12.7			1.2 ... 2.0	50.0	52.0	IPD127No6L G	OptiMOS <sup>®</sup>
	14.4			2.0 ... 4.0	50.0	38.0	IPD144No6N G	OptiMOS <sup>®</sup>
	23.0			1.2 ... 2.0	30.0	31.0	IPD230No6L G	OptiMOS <sup>®</sup>
	23.0			2.0 ... 4.0	30.0	23.0	IPD230No6N G	OptiMOS <sup>®</sup>
	35.0			1.2 ... 2.0	29.0	20.0	IPD350No6L G <sup>1)</sup>	OptiMOS <sup>®</sup>
	40.0			2.0 ... 4.0	27.0	13.0	IPD400No6N G	OptiMOS <sup>®</sup>
	64.0			1.2 ... 2.0	18.0	10.0	IPD640No6L G	OptiMOS <sup>®</sup>
	80.0			2.0 ... 4.0	16.0	7.0	IPD800No6N G	OptiMOS <sup>®</sup>
85 V	12.4			2.0 ... 4.0	67.0	49.0	IPD12CNE8N G	OptiMOS <sup>®2</sup>
	16.0			2.0 ... 4.0	53.0	36.0	IPD16CNE8N G	OptiMOS <sup>®2</sup>
	26.0			2.0 ... 4.0	35.0	23.0	IPD25CNE8N G	OptiMOS <sup>®2</sup>
100 V	12.4			2.0 ... 4.0	67.0	49.0	IPD12CN10N G	OptiMOS <sup>®2</sup>
	16.0			2.0 ... 4.0	53.0	36.0	IPD16CN10N G	OptiMOS <sup>®2</sup>
	26.0			2.0 ... 4.0	35.0	23.0	IPD25CN10N G	OptiMOS <sup>®2</sup>
	33.0			2.0 ... 4.0	27.0	18.0	IPD33CN10N G	OptiMOS <sup>®2</sup>
	49.0			2.0 ... 4.0	20.0	12.0	IPD49CN10N G	OptiMOS <sup>®2</sup>
	64.0			2.0 ... 4.0	17.0	6.0	IPD64CN10N G	OptiMOS <sup>®2</sup>
	78.0			2.0 ... 4.0	13.0	8.0	IPD78CN10N G	OptiMOS <sup>®2</sup>
	44.0			2.0 ... 4.0	35.0	49.0	SPD35N10	Planar
200 V	400.0			2.0 ... 4.0	7.0	21.0	SPD07N20	Planar
500 V	3000.0			2.1 ... 3.9	1.8	9.0	SPD02N50C3	CoolMOS <sup>TM</sup> C3
	1400.0			2.1 ... 3.9	3.2	15.0	SPD03N50C3	CoolMOS <sup>TM</sup> C3
	950.0			2.1 ... 3.9	4.5	22.0	SPD04N50C3	CoolMOS <sup>TM</sup> C3
	600.0			2.1 ... 3.9	7.6	32.0	SPD08N50C3	CoolMOS <sup>TM</sup> C3
	520.0			2.5 ... 3.5	7.0	13.0	IPD50R520CP	CoolMOS <sup>TM</sup> CP
	399.0			2.5 ... 3.5	9.0	17.0	IPD50R399CP	CoolMOS <sup>TM</sup> CP
600 V	6000.0			2.1 ... 3.9	0.8	3.9	SPD01N60C3	CoolMOS <sup>TM</sup> C3
	3000.0			3.5 ... 5.5	1.8	7.3	SPD02N60S5	CoolMOS <sup>TM</sup> S5
	3000.0			2.1 ... 3.9	1.8	9.5	SPD02N60C3	CoolMOS <sup>TM</sup> C3
	1400.0			3.5 ... 5.5	3.2	12.4	SPD03N60S5	CoolMOS <sup>TM</sup> S5
	1400.0			2.1 ... 3.9	3.2	13.0	SPD03N60C3	CoolMOS <sup>TM</sup> C3
	950.0			3.5 ... 5.5	4.5	17.6	SPD04N60S5	CoolMOS <sup>TM</sup> S5
	950.0			2.1 ... 3.9	4.5	19.0	SPD04N60C3	CoolMOS <sup>TM</sup> C3
	750.0			2.1 ... 3.9	6.2	24.0	SPD06N60C3	CoolMOS <sup>TM</sup> C3
	600.0			2.1 ... 3.9	7.3	21.0	SPD07N60C3	CoolMOS <sup>TM</sup> C3
	600.0			3.5 ... 5.5	7.3	27.0	SPD07N60S5	CoolMOS <sup>TM</sup> S5
	385.0			2.5 ... 3.5	9.0	17.0	IPD60R385CP	CoolMOS <sup>TM</sup> CP
800 V	2700.0			2.1 ... 3.9	2.0	9.0	SPD02N80C3	CoolMOS <sup>TM</sup> C3
	1300.0			2.1 ... 3.9	4.0	20.0	SPD04N80C3	CoolMOS <sup>TM</sup> C3
	900.0			2.1 ... 3.9	6.0	27.0	SPD06N80C3	CoolMOS <sup>TM</sup> C3

1) Can be mass-produced on customer request

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)



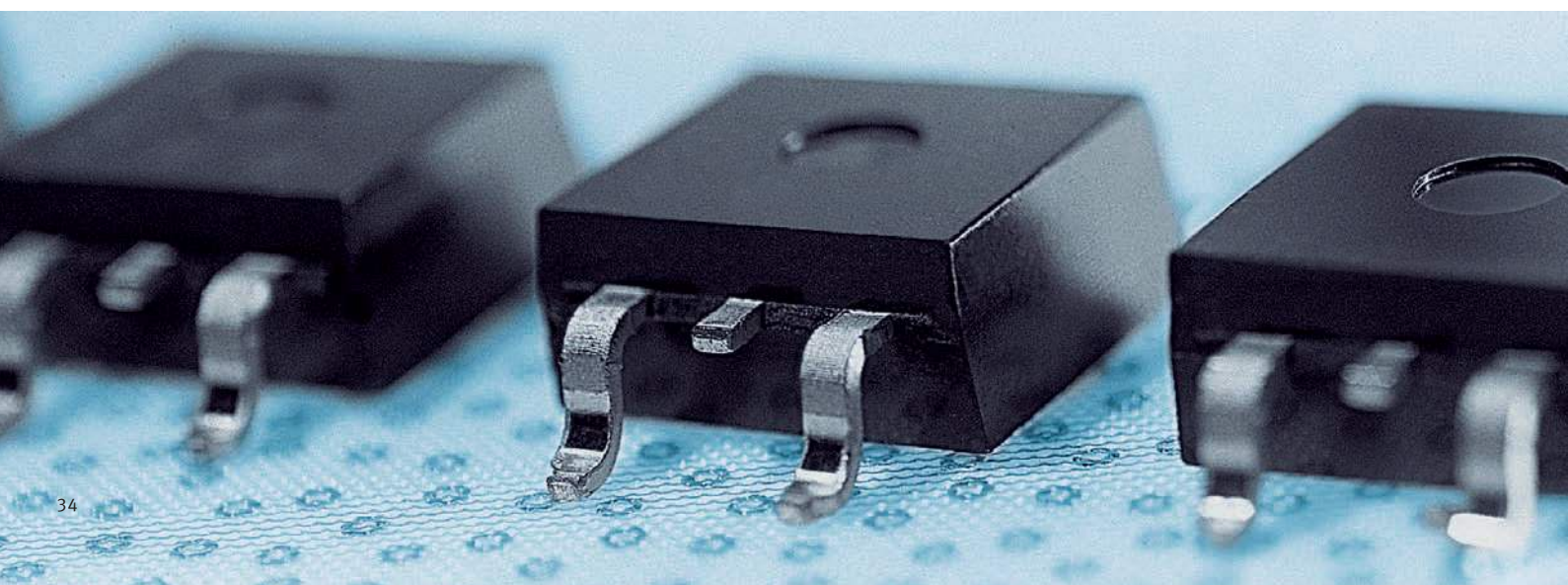
## Reverse D-PAK (TO252)

Voltage	$R_{DS(on) \max.}$ [m $\Omega$ ]			$V_{GS(th)}$ [V]	$I_D$ [A]	typ. $Q_g$ [nC]	Type	Technology
	@ $V_{GS} = 10$ V	@ $V_{GS} = 4.5$ V	@ $V_{GS} = 2.5$ V					
25 V	4.0			1.2 ... 2.0	50.0	31.0	IPFo4No3LA G	OptiMOS <sup>®2</sup>
	5.3			1.2 ... 2.0	50.0	19.0	IPFo5No3LA G	OptiMOS <sup>®2</sup>
	5.9			1.2 ... 2.0	50.0	17.0	IPFo6No3LA G	OptiMOS <sup>®2</sup>
	6.2			1.2 ... 2.0	50.0	14.0	IPFH6No3LA G	OptiMOS <sup>®2</sup>
	8.8			1.2 ... 2.0	50.0	10.0	IPFo9No3LA G	OptiMOS <sup>®2</sup>
	10.4			1.2 ... 2.0	30.0	8.2	IPF10No3LA G	OptiMOS <sup>®2</sup>
	12.8			1.2 ... 2.0	30.0	6.3	IPF13No3LA G	OptiMOS <sup>®2</sup>
30 V	3.9	5.2		1.0 ... 2.2	50.0	25.0	IPFo39No3L G	OptiMOS <sup>®3</sup>
	4.3			1.2 ... 2.0	50.0	30.0	IPFo4No3LB G <sup>1)</sup>	OptiMOS <sup>®2</sup>
	5.0	n.a.		1.0 ... 1.2	50.0	16.69 <sup>2)</sup>	IPFo50No3L G	OptiMOS <sup>®3</sup>
	6.0	9.0		1.0 ... 2.2	50.0	11.3	IPFo60No3L G	OptiMOS <sup>®3</sup>
	6.3			1.2 ... 2.0	50.0	16.0	IPFo6No3LB G <sup>1)</sup>	OptiMOS <sup>®2</sup>
	7.5	n.a.		1.0 ... 2.2	50.0	9.7 <sup>2)</sup>	IPFo75No3L G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	9.0	13.5		1.0 ... 2.2	40.0	7.4	IPFo90No3L G	OptiMOS <sup>®3</sup>
	9.3			1.2 ... 2.0	50.0	10.0	IPFo9No3LB G <sup>1)</sup>	OptiMOS <sup>®2</sup>
	10.5	n.a.		1.0 ... 2.2	30.0	7.32 <sup>2)</sup>	IPF105No3L G	OptiMOS <sup>®3</sup>
	11.8			1.2 ... 2.0	30.0	8.0	IPF12No3LB G <sup>1)</sup>	OptiMOS <sup>®2</sup>
	13.5	20.5		1.0 ... 2.2	30.0	4.8	IPF135No3L G	OptiMOS <sup>®3</sup>
	14.5			1.2 ... 2.0	30.0	6.0	IPF15No3LB G <sup>1)</sup>	OptiMOS <sup>®2</sup>

1) Can be mass-produced on customer request

2) Preliminary data

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## I-PAK (TO251)

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-60 V	75.0			-4.0 ... -2.1	-30.0	32.0	SPU30Po6P	Planar
	130.0			-4.0 ... -2.1	-18.6	22.0	SPU18Po6P	Planar
	250.0	400.0		-2.0 ... -1.0	-9.7	14.0	SPU09Po6P	Planar
	300.0			-4.0 ... -2.1	-8.8	10.0	SPU08Po6P	Planar
25 V	4.0			1.2 ... 2.0	50.0	31.0	IPU04No3LA G	OptiMOS <sup>®</sup> 2
	5.3			1.2 ... 2.0	50.0	19.0	IPU05No3LA G	OptiMOS <sup>®</sup> 2
	5.9			1.2 ... 2.0	50.0	17.0	IPU06No3LA G	OptiMOS <sup>®</sup> 2
	6.2			1.2 ... 2.0	50.0	14.0	IPUH6No3LA G	OptiMOS <sup>®</sup> 2
	8.8			1.2 ... 2.0	50.0	10.0	IPU09No3LA G	OptiMOS <sup>®</sup> 2
	10.4			1.2 ... 2.0	30.0	8.2	IPU10No3LA G	OptiMOS <sup>®</sup> 2
	12.8			1.2 ... 2.0	30.0	6.3	IPU13No3LA G	OptiMOS <sup>®</sup> 2
30 V	3.9	n.a.		1.0 ... 2.2	50.0	27.54 <sup>2)</sup>	IPU039No3L G	OptiMOS <sup>®</sup> 3
	4.3			n.a.	50.0	n.a.	IPU04No3LB G	OptiMOS <sup>®</sup> 2
	5.0	n.a.		1.0 ... 2.2	50.0	16.69 <sup>2)</sup>	IPU050No3L G	OptiMOS <sup>®</sup> 3
	6.0	9.0		1.0 ... 2.2	50.0	11.3	IPU060No3L G	OptiMOS <sup>®</sup> 3
	6.3			1.2 ... 2.0	50.0	16.0	IPUH6No3LB G	OptiMOS <sup>®</sup> 2
	7.5	n.a.		1.0 ... 2.0	40.0	9.7 <sup>2)</sup>	IPU075No3L G	OptiMOS <sup>®</sup> 3
	9.0	14.0		1.0 ... 2.2	40.0	7.4	IPU090No3L G	OptiMOS <sup>®</sup> 3
	9.3			1.2 ... 2.0	50.0	10.0	IPU09No3LB G	OptiMOS <sup>®</sup> 2
	10.5	n.a.		1.0 ... 2.2	30.0	7.32 <sup>2)</sup>	IPU105No3L G	OptiMOS <sup>®</sup> 3
	11.8			1.2 ... 2.0	30.0	8.0	IPU12No3LB G <sup>1)</sup>	OptiMOS <sup>®</sup> 2
	13.5	21.0		1.0 ... 2.2	30.0	4.8	IPU135No3L G	OptiMOS <sup>®</sup> 3
14.5			1.2 ... 2.0	30.0	6.0	IPU15No3LB G <sup>1)</sup>	OptiMOS <sup>®</sup> 2	
85 V	26.0			2.0 ... 4.0	35.0	23.0	IPU26CNE8N G	OptiMOS <sup>®</sup> 2
100 V	170.0			2.1 ... 4.0	10.5	14.6	SPD/U11N10	Planar
	26.0			2.0 ... 4.0	35.0	23.0	IPU26CN10N G	OptiMOS <sup>®</sup> 2
	35.0			2.0 ... 4.0	27.0	18.0	IPU35CN10N G	OptiMOS <sup>®</sup> 2
	49.0			2.0 ... 4.0	20.0	12.0	IPU49CN10N G	OptiMOS <sup>®</sup> 2
	64.0			2.0 ... 4.0	17.0	6.0	IPU64CN10N G	OptiMOS <sup>®</sup> 2
	78.0			2.0 ... 4.0	13.0	8.0	IPU78CN10N G	OptiMOS <sup>®</sup> 2
600 V	6000.0			2.1 ... 3.9	0.8	3.9	SPU01N60C3	CoolMOS <sup>™</sup> C3
	3000.0			3.5 ... 5.5	1.8	7.3	SPU02N60S5	CoolMOS <sup>™</sup> S5
	3000.0			2.1 ... 3.9	1.8	9.5	SPU02N60C3	CoolMOS <sup>™</sup> C3
	1400.0			3.5 ... 5.5	3.2	12.4	SPU03N60S5	CoolMOS <sup>™</sup> S5
	1400.0			2.1 ... 3.9	3.2	12.4	SPU03N60C3	CoolMOS <sup>™</sup> C3
	950.0			3.5 ... 5.5	4.5	17.6	SPU04N60S5	CoolMOS <sup>™</sup> S5
	950.0			2.1 ... 3.9	4.5	17.6	SPU04N60C3	CoolMOS <sup>™</sup> C3
	600.0			3.5 ... 5.5	7.3	27.0	SPU07N60S5	CoolMOS <sup>™</sup> S5

1) Can be mass-produced on customer request

2) Preliminary data

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## I-PAK Short Leads (TO251 SL)

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
25 V	3.4			1.2 ... 2.0	90.0	31.0	IPSo3No3LA G	OptiMOS <sup>®2</sup>
	4.4			1.2 ... 2.0	90.0	19.0	IPSH4No3LA G	OptiMOS <sup>®2</sup>
	4.0			1.2 ... 2.0	50.0	31.0	IPSo4No3LA G	OptiMOS <sup>®2</sup>
	5.2			1.2 ... 2.0	50.0	17.0	IPSH5No3LA G	OptiMOS <sup>®2</sup>
	5.3			1.2 ... 2.0	50.0	19.0	IPSo5No3LA G	OptiMOS <sup>®2</sup>
	5.9			1.2 ... 2.0	50.0	17.0	IPSo6No3LA G	OptiMOS <sup>®2</sup>
	6.2			1.2 ... 2.0	50.0	14.0	IPSH6No3LA G	OptiMOS <sup>®2</sup>
	8.8			1.2 ... 2.0	50.0	10.0	IPSo9No3LA G	OptiMOS <sup>®2</sup>
	9.2			1.2 ... 2.0	30.0	9.0	IPSH9No3LA G	OptiMOS <sup>®2</sup>
	10.4			1.2 ... 2.0	30.0	8.2	IPSo10No3LA G	OptiMOS <sup>®2</sup>
12.8			1.2 ... 2.0	30.0	6.3	IPSo13No3LA G	OptiMOS <sup>®2</sup>	
30 V	3.1	4.4		1.0 ... 2.2	90.0	25.0	IPSo31No3L G	OptiMOS <sup>®3</sup>
	3.5			1.2 ... 2.0	90.0	30.0	IPSo3No3LB G	OptiMOS <sup>®2</sup>
	4.0	n.a.		1.2 ... 2.0	n.a.	20.25 <sup>2)</sup>	IPSo40No3L G	OptiMOS <sup>®3</sup>
	4.3			1.2 ... 2.0	50.0	30.0	IPSo4No3LB G	OptiMOS <sup>®2</sup>
	5.0	n.a.		1.2 ... 2.0	50.0	16.69 <sup>2)</sup>	IPSo50No3L G	OptiMOS <sup>®3</sup>
	5.0			1.2 ... 2.0	90.0	19.0	IPSo5No3LB G	OptiMOS <sup>®2</sup>
	6.0	9.0		1.0 ... 2.2	50.0	11.3	IPSo60No3L G	OptiMOS <sup>®3</sup>
	6.3			1.2 ... 2.0	50.0	16.0	IPSo6No3LB G <sup>1)</sup>	OptiMOS <sup>®2</sup>
	7.5	n.a.		1.0 ... 2.2	40.0	9.7 <sup>2)</sup>	IPSo75No3L G	OptiMOS <sup>®3</sup>
	9.0	13.5		1.0 ... 2.2	40.0	7.4	IPSo90No3L G	OptiMOS <sup>®3</sup>
	9.3			1.2 ... 2.0	50.0	10.0	IPSo9No3LB G	OptiMOS <sup>®2</sup>
	10.5	n.a.		1.0 ... 2.2	30.0	7.32 <sup>2)</sup>	IPSo105No3L G	OptiMOS <sup>®3</sup>
	11.8			1.2 ... 2.0	30.0	8.0	IPSo12No3LB G <sup>1)</sup>	OptiMOS <sup>®2</sup>
	13.5	20.5		1.0 ... 2.2	30.0	4.8	IPSo135No3L G	OptiMOS <sup>®3</sup>
14.5			1.2 ... 2.0	30.0	6.0	IPSo15No3LB G <sup>1)</sup>	OptiMOS <sup>®2</sup>	
6.3			1.2 ... 2.0	50.0	16.0	IPSH6No3LB G	OptiMOS <sup>®2</sup>	
500 V	3000.0			2.1 ... 3.9	1.8	9.0	SPSo2N50C3	CoolMOS <sup>™</sup> C3
	1000.0			2.1 ... 3.9	3.2	15.0	SPSo3N50C3	CoolMOS <sup>™</sup> C3
	950.0			2.1 ... 3.9	4.5	22.0	SPSo4N50C3	CoolMOS <sup>™</sup> C3
	520.0			2.5 ... 3.5	7.0	13.0	IPSo50R520CP	CoolMOS <sup>™</sup> CP
600 V	6000.0			2.1 ... 3.9	0.8	3.9	SPSo1N60C3	CoolMOS <sup>™</sup> C3
	3000.0			2.1 ... 3.9	1.8	9.5	SPSo2N60C3	CoolMOS <sup>™</sup> C3
	1400.0			2.1 ... 3.9	3.2	13.0	SPSo3N60C3	CoolMOS <sup>™</sup> C3
	950.0			2.1 ... 3.9	4.5	19.0	SPSo4N60C3	CoolMOS <sup>™</sup> C3

1) Can be mass-produced on customer request

2) Preliminary data



## S08

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-60 V	130.0			-4.0 ... -2.1	-3.44	20.0	BSO613SPV	Planar
-30 V	8.0			-2.2 ... -1.0	-14.9	-102.0	BSO080Po3S	OptiMOS <sup>®2</sup>
	8.0	12.0		-2.0 ... -1.0	-14.9		BSO301Sp	OptiMOS <sup>®2</sup>
	13.0			-2.2 ... -1.0	-11.3	-61.0	BSO130Po3S	OptiMOS <sup>®2</sup>
	20.0			-2.2 ... -1.0	-9.1	-40.0	BSO200Po3S	OptiMOS <sup>®2</sup>
	21.0	32.0		-2.0 ... -1.0	-8.2	-48.3	BSO303P (dual)	OptiMOS <sup>®2</sup>
	21.0	32.0		-2.0 ... -1.0	-8.2		BSO303SP	OptiMOS <sup>®2</sup>
-20 V		8.0	12.9	-1.2 ... -0.6	-14.6	-85.5	BSO201SP	OptiMOS <sup>®2</sup>
		21.0	34.0	-1.2 ... -0.6	-9.0	-33.6	BSO203Sp	OptiMOS <sup>®2</sup>
		21.0	35.0	-1.2 ... -0.6	-8.2	-32.4	BSO203P (dual)	OptiMOS <sup>®2</sup>
		30.0	42.0	-1.2 ... -0.6	-7.0	-23.9	BSO204P (dual)	OptiMOS <sup>®2</sup>
		45.0	70.0	-1.2 ... -0.6	5.7	15.6	BSO207P (dual)	OptiMOS <sup>®2</sup>
		67.0	110.0	-1.2 ... -0.6	4.7	15.9	BSO211P (dual)	OptiMOS <sup>®2</sup>
30 V	5.2			1.2 ... 2.0	17.0	32.0	BSO052No3S	OptiMOS <sup>®2</sup>
	6.4			1.2 ... 2.0	16.0	21.0	BSO064No3S	OptiMOS <sup>®2</sup>
	6.8			1.2 ... 2.0	15.0	19.0	BSO072No3S	OptiMOS <sup>®2</sup>
	9.1			1.2 ... 2.0	13.0	13.0	BSO094No3S	OptiMOS <sup>®2</sup>
	9.7			1.2 ... 2.0	13.0	12.0	BSO104No3S	OptiMOS <sup>®2</sup>
	11.9			1.2 ... 2.0	11.0	10.0	BSO119No3S	OptiMOS <sup>®2</sup>
	15.0			1.2 ... 2.0	9.1	11.0	BSO150No3 (dual)	OptiMOS <sup>®2</sup>
	20.0			1.2 ... 2.0	7.9	6.0	BSO200No3 (dual)	OptiMOS <sup>®2</sup>
	20.0			1.2 ... 2.0	8.8	4.9	BSO200No3S	OptiMOS <sup>®2</sup>
	30.0			1.2 ... 2.0	7.2	3.5	BSO300No3S	OptiMOS <sup>®2</sup>
35.0			1.2 ... 2.0	6.0	2.8	BSO350No3 (dual)	OptiMOS <sup>®2</sup>	
60 V	150.0			1.2 ... 2.0	2.6	14.0	BSO615N (dual)	Planar
60 V/ -60 V	110.0	150.0		1.2 ... 2.0	3.1	13.5	BSO615C	Complementary
	300.0	450.0		-2.0 ... -1.0	-2.0	15.0		
	120.0			2.1 ... 4.0	3.0	10.5	BSO612CV	Complementary
	300.0			-4.0 ... -2.1	-2.0	10.3		

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## SuperS08



Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
25 V	2.0			1.2 ... 2.0	100.0	50.0	BSC020N025S G	OptiMOS <sup>®2</sup>
	2.4			1.2 ... 2.0	100.0	39.0	BSC024N025S G	OptiMOS <sup>®2</sup>
	2.9			1.2 ... 2.0	100.0	31.0	BSC029N025S G	OptiMOS <sup>®2</sup>
	3.7			1.2 ... 2.0	100.0	22.0	BSC037N025S G	OptiMOS <sup>®2</sup>
	4.8			1.2 ... 2.0	89.0	16.0	BSC048N025S G	OptiMOS <sup>®2</sup>
	7.2			1.2 ... 2.0	40.0	13.0	BSC072N025S G	OptiMOS <sup>®2</sup>
	8.5			1.2 ... 2.0	35.0	11.0	BSC085N025S G	OptiMOS <sup>®2</sup>
	10.6			1.2 ... 2.0	30.0	8.3	BSC106N025S G	OptiMOS <sup>®2</sup>
30 V	1.6	2.3		1.2 ... 2.0	100.0	56.0	BSC016N03LS G	OptiMOS <sup>®3</sup>
	2.0	2.9		1.0 ... 2.2	100.0	40.0	BSC020N03LS G	OptiMOS <sup>®3</sup>
	2.2			1.2 ... 2.0	100.0	48.0	BSC022N03S G	OptiMOS <sup>®2</sup>
	2.5	n.a.		n.a.	100.0	n.a.	BSC025N03LS G	OptiMOS <sup>®3</sup>
	2.7			1.2 ... 2.0	100.0	38.0	BSC027N03S G	OptiMOS <sup>®2</sup>
	3.0	4.7		1.0 ... 2.2	100.0	20.0	BSC030N03LS G	OptiMOS <sup>®3</sup>
	3.2			1.2 ... 2.0	100.0	29.0	BSC032N03S G	OptiMOS <sup>®2</sup>
	4.2	5.9		1.0 ... 2.2	95.0	16.8	BSC042N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	4.2			1.2 ... 2.0	95.0	21.0	BSC042N03S G	OptiMOS <sup>®2</sup>
	5.0	n.a.		n.a.	80.0	n.a.	BSC050N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	5.2			1.2 ... 2.0	80.0	16.0	BSC052N03S G	OptiMOS <sup>®2</sup>
	5.7	n.a.		n.a.	n.a.	n.a.	BSC057N03S G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	5.5			1.2 ... 2.0	73.0	15.0	BSC059N03S G	OptiMOS <sup>®2</sup>
	6.0			n.a.	73.0	n.a.	BSC060N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	7.9			1.2 ... 2.0	40.0	13.0	BSC079N03S G	OptiMOS <sup>®2</sup>
	8.0	n.a.		n.a.	35.0	n.a.	BSC080N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	9.0	n.a.		n.a.	n.a.	n.a.	BSC090N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
9.4			1.2 ... 2.0	35.0	10.0	BSC094N03S G	OptiMOS <sup>®2</sup>	
10.0	n.a.		n.a.	30.0	n.a.	BSC100N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>	
11.9			1.2 ... 2.0	30.0	8.0	BSC119N03S G	OptiMOS <sup>®2</sup>	
12.0	18.1		n.a.	30.0	n.a.	BSC120N03S G <sup>1)</sup>	OptiMOS <sup>®3</sup>	
100 V	9.0			2.0 ... 4.0	50.0	66.0	BSC09CN10NS G	OptiMOS <sup>®2</sup>
	11.0			2.0 ... 4.0	50.0	34.0	BSC11CN10NSF G	OptiMOS <sup>®2</sup>
	13.0			2.0 ... 4.0	50.0	11.0	BSC13CN10NS G	OptiMOS <sup>®2</sup>
	17.0			2.0 ... 4.0	50.0	6.0	BSC17CN10NSF G	OptiMOS <sup>®2</sup>
	22.0			2.0 ... 4.0	50.0	26.0	BSC20CN10NS G	OptiMOS <sup>®2</sup>
	28.0			2.0 ... 4.0	43.0	13.0	BSC26CN10NSF G	OptiMOS <sup>®2</sup>

1) Coming 2007

## S308



Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
30 V	3.5	6.0		1.0 ... 2.2	40.0	42.0	BSZ035N03LS G	OptiMOS <sup>®3</sup>
	4.0	n.a.		1.0 ... 2.2	n.a.	n.a.	BSZ040N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	5.8	n.a.		n.a.	n.a.	n.a.	BSZ050N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	5.8	n.a.		n.a.	n.a.	n.a.	BSZ058N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	8.8	n.a.		n.a.	n.a.	n.a.	BSZ088N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	10.0	n.a.		n.a.	n.a.	n.a.	BSZ100N03LS G <sup>1)</sup>	OptiMOS <sup>®3</sup>
	13.0	20.0		1.0 ... 2.2	35.0	9.0	BSZ130N03LS G	OptiMOS <sup>®3</sup>

1) Preliminary data

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)



## SOT223

Voltage	$R_{DS(on) \max.}$ [mΩ]			$V_{GS(th)}$ [V]	$I_D$ [A]	typ. $Q_g$ [nC]	Type	Technology
	@ $V_{GS} = 10$ V	@ $V_{GS} = 4.5$ V	@ $V_{GS} = 2.5$ V					
-250 V	4000.0	5000.0		-2.0 ... -1.0	-0.43	11.6	BSP317P	Planar
	12000.0	15000.0		-2.0 ... -1.0	-0.26	4.3	BSP92P	Planar
-100 V	1800.0	2300.0		-2.0 ... -1.0	-0.68	5.1	BSP316P	Planar
	950.0			-4.0 ... -2.1	-0.96	9.6	BSP321P <sup>1)</sup>	Planar
	830.0	1000.0		-2.0 ... -1.0	-1.0	12.0	BSP322P <sup>1)</sup>	Planar
-60 V	130.0			-4.0 ... -2.1	-2.9	22.0	BSP613P	Planar
	300.0			-4.0 ... -2.1	-1.9	12.5	BSP170P	Planar
	300.0	450.0		-2.0 ... -1.0	-1.9	13.3	BSP171P	Planar
	800.0	1400.0		-2.0 ... -1.0	-1.17	5.2	BSP315P	Planar
60 V	90.0	150.0		1.2 ... 2.0	2.6	14.0	BSP318S	Planar
	300.0	500.0		0.8 ... 2.0	1.8	14.0	BSP295	Planar
	120.0			2.1 ... 4.0	2.9	9.7	BSP320S	Planar
100 V	300.0			2.1 ... 4.0	1.7	13.0	BSP373	Planar
	310.0			0.8 ... 2.0	1.7		BSP372	Planar
	700.0			0.8 ... 1.8	1.1	13.8	BSP296	Planar
	6000.0			0.8 ... 1.8	0.37	1.6	BSP123	Planar
200 V	1800.0	3000.0		0.8 ... 1.8	0.66	12.9	BSP297	Planar
240 V	6000.0	7500.0		0.8 ... 1.8	0.35		BSP89	Planar
	6000.0	7500.0	15000.0	0.6 ... 1.4	0.35		BSP88	Planar
400 V	3000.0			2.1 ... 4.0	0.36		BSP298	Planar
	25000.0	22000.0		1.5 ... 2.5	0.32		BSP324	Planar
500 V	4000.0			2.1 ... 4.0	0.4		BSP299	Planar
600 V	45.0			1.5 ... 2.5	0.12	3.9	BSP125	Planar
	500.0			1.4 ... 2.6	0.023	1.4	BSS127	Planar
	45.0			1.3 ... 2.3	0.09	3.9	BSS225	Planar
	6000.0			2.1 ... 3.9	0.3	3.9	SPNo1N60C3	CoolMOS™C3
	1400.0			3.5 ... 5.5	0.7	12.8	SPNo3N60S5	CoolMOS™S5
	1400.0			2.1 ... 3.9	0.7	13.0	SPNo3N60C3	CoolMOS™C3
	3000.0			3.5 ... 5.5	0.4	7.4	SPNo2N60S5	CoolMOS™S5
	3000.0			2.1 ... 3.9	0.4	10.0	SPNo2N60C3	CoolMOS™C3
	950.0			3.5 ... 5.5	0.8	17.0	SPNo4N60S5	CoolMOS™S5
800 V	20.0			2.1 ... 4.0	0.19		BSP300	Planar

1) Coming E/2006

## SOT89



Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-250 V	12000.0	15000.0		-2.0 ... -1.0	-0.19	4.9	BSS192P	Planar
240 V	6000.0	7500.0		0.8 ... 1.8	0.26	3.7	BSS87	Planar

## SOT23



Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-60 V	2000.0	3000.0		-2.0 ... -1.0	-0.33	2.38	BSS83P	Planar
	8000.0	12000.0		-2.0 ... -1.0	-0.17	1.0	BSS84P	Planar
55 V	650.0	825.0		1.2 ... 2.0	0.54	1.7	BSS670S2L	OptiMOS®
60 V	3500.0	4000.0		0.6 ... 1.4	0.23	1.0	BSS138N	Planar
	5000.0	7500.0		0.8 ... 1.8	0.2	1.0	SN7002N	Planar
	5000.0	7500.0		1.3 ... 2.3	0.2	1.0	BSS7728N	Planar
100 V	6000.0			0.8 ... 1.8	0.17	1.78	BSS123	Planar
	6000.0			1.3 ... 2.3	0.17	1.67	BSS119	Planar
240 V	14000.0	20000.0		0.8 ... 1.8	0.11	2.1	BSS131	Planar

## SC59



Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-250 V	11000.0	13000.0		-2.0 ... -1.0	-0.14		BSR92P <sup>1)</sup>	Planar
-100 V	1800.0	2200.0		-2.0 ... -1.0	-0.36	5.1	BSR316 <sup>1)</sup>	Planar
-60 V	800.0	1300.0		-2.0 ... -1.0	-0.62	5.2	BSR315P <sup>1)</sup>	Planar

1) Coming E/2006

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## SOT323

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-60 V	8000.0	12000.0		-2.0 ... -1.0	-0.15	1.0	BSS84PW <sup>1)</sup>	Planar
-20 V		550.0	900.0	-1.2 ... -0.6	-0.58	-0.92	BSS209PW	OptiMOS <sup>®2</sup>
		100.0	2100.0	-1.2 ... -0.6	-0.39	-0.5	BSS223PW	OptiMOS <sup>®2</sup>
60 V	3500.0	4000.0		0.6 ... 1.4	0.28	1.0	BSS138W	Planar
	5000.0	7500.0		0.8 ... 1.8	0.23	1.0	SN7002W	Planar

1)  $R_{DS(on) \text{ max.}} = 25 \Omega$ , @  $V_{GS} = 2.7 \text{ V}$



## SOT363

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-20 V		175.0	285.0	-1.2 ... -0.6	-1.5	-3.8	BSV236SP	OptiMOS <sup>®2</sup>
		1200.0	2100.0	-1.2 ... -0.6	-0.39	-0.5	BSD223P (dual)	OptiMOS <sup>®2</sup>



## TSOP6

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-30 V	43.0	74.0		-2.0 ... -1.0	-5.5	-23.4	BSL307SP	OptiMOS <sup>®2</sup>
-20 V		41.0	65.0	-1.2 ... -0.6	-6.0	-13.3	BSL207SP	OptiMOS <sup>®2</sup>
		67.0	110.0	-1.2 ... -0.6	-4.7	-8.3	BSL211SP	OptiMOS <sup>®2</sup>



## SC75

Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
-20 V		1200.0	2100.0	-1.2 ... -0.6	-0.39	-0.5	BSA223SP	OptiMOS <sup>®2</sup>

For an overview about ROHS-compliant products please go to [www.infineon.com/greenproducts](http://www.infineon.com/greenproducts)

# Depletion MOSFETs

## SOT23



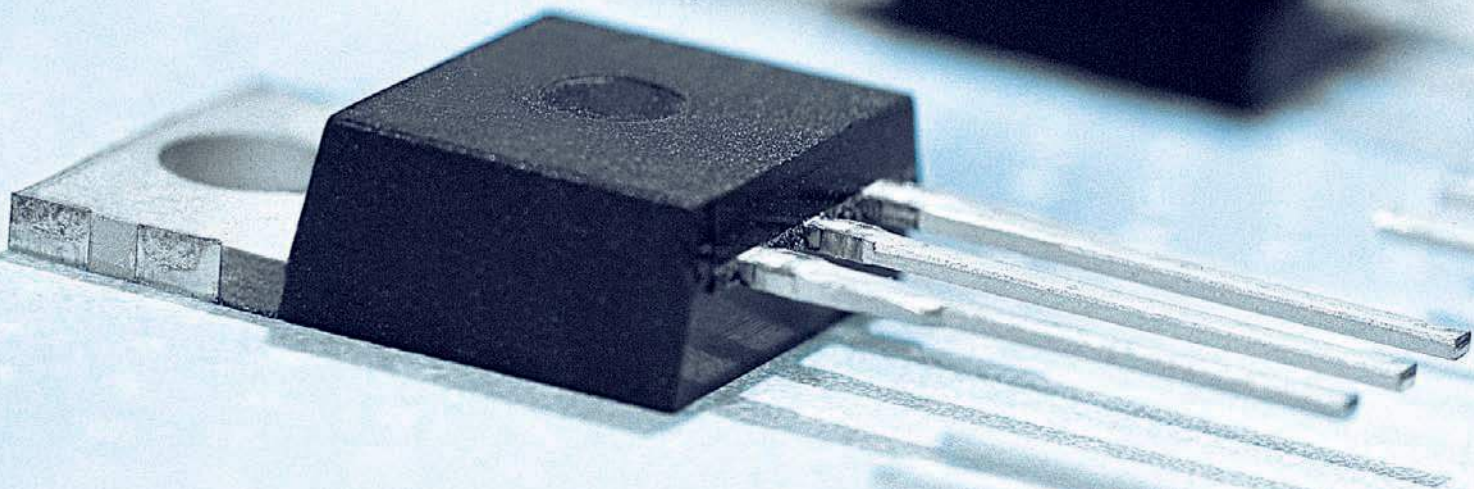
Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
60 V	3.5			-3.5 ... -2.4	0.23	2.2	BSS159N	Planar
100 V	6.0			-2.9 ... -1.8	0.17	2.1	BSS169	Planar
240 V	14.0			-2.1 ... -1.0	0.1	2.3	BSS139	Planar
600 V	500.0			-2.7 ... -1.6	0.021	1.4	BSS126	Planar

## SOT223



Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$V_{GS(th) [V]}$	$I_D [A]$	typ. $Q_g [nC]$	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
200 V	1.8			-2.1 ... -1.0	0.66	11.0	BSP149	Planar
240 V	6.0			-2.1 ... -1.0	0.35	3.8	BSP129	Planar
600 V	45.0			-2.1 ... -1.0	0.12	3.7	BSP135	Planar

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# HV Diodes



## TO220

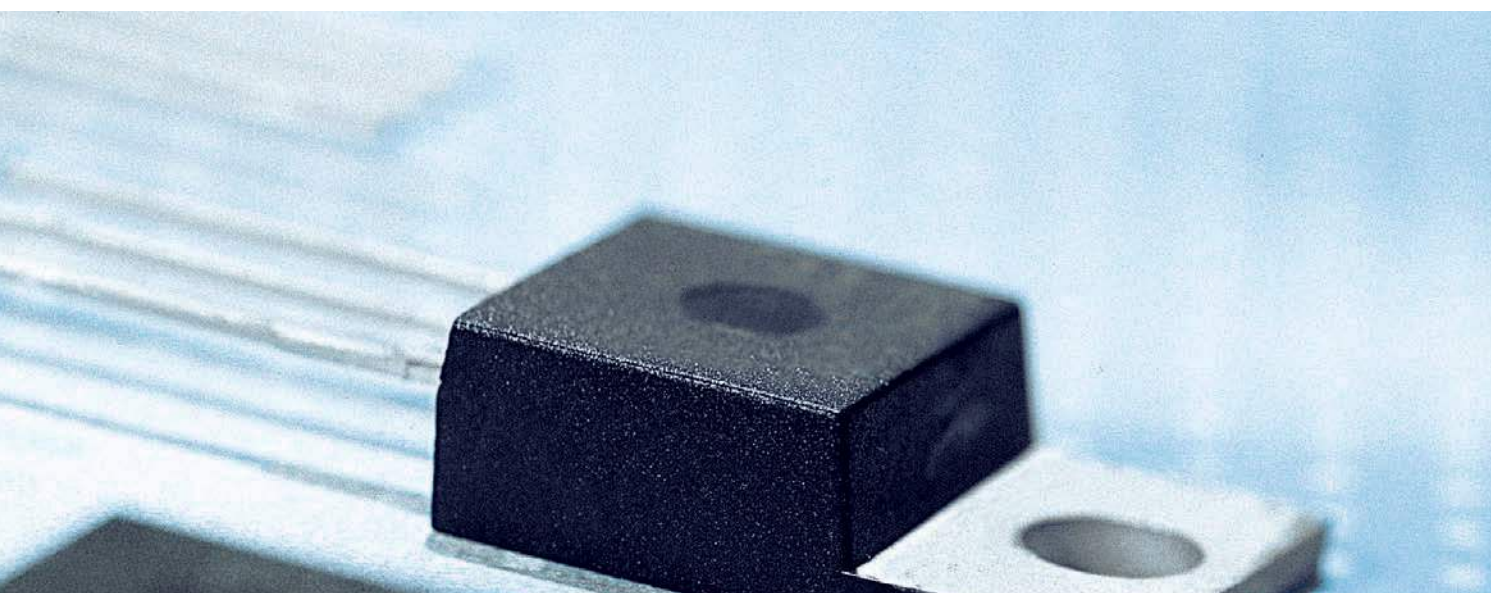
Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$I_F$ [A]	typ. $Q_C$ [nC]	$I_{F,SD}$ [A]	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
300 V				10.0	23.0	36.0	SDT10S30	ThinQ!™
				10.0	23.0	36.0	SDP10S30	ThinQ!™
				2 x 10.0	23.0	36.0	SDP20S30	ThinQ!™
600 V				4.0	32.0	8.0	IDT04S60C	ThinQ!™ 2G
				5.0	42.0	12.0	IDT05S60C	ThinQ!™ 2G
				2 x 5.0	84.0	24.0	IDT10S60C	ThinQ!™ 2G
				6.0	49.0	15.0	IDT06S60C	ThinQ!™ 2G
				2 x 6.0	98.0	30.0	IDT12S60C	ThinQ!™ 2G
				8.0	59.0	19.0	IDT08S60C	ThinQ!™ 2G
				2 x 8.0	118.0	38.0	IDT16S60C	ThinQ!™ 2G

## D-PAK (TO252)



Voltage	$R_{DS(on) \text{ max. [m}\Omega]}$			$I_F$ [A]	typ. $Q_C$ [nC]	$I_{F,SD}$ [A]	Type	Technology
	@ $V_{GS} = 10 \text{ V}$	@ $V_{GS} = 4.5 \text{ V}$	@ $V_{GS} = 2.5 \text{ V}$					
600 V				4.0	32.0	8.0	IDD04S60C	ThinQ!™ 2G

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# Alphanumeric Listing




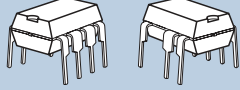
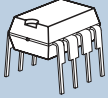
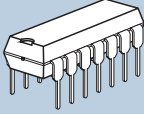
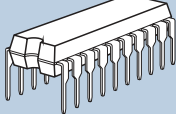




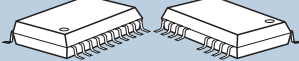
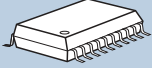
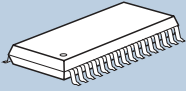
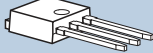

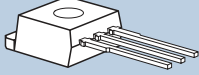







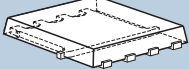


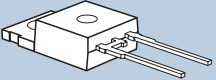
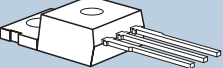
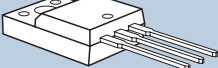
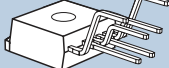
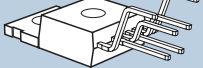
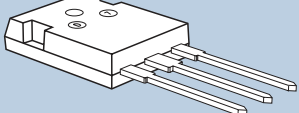

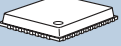
Product Name	Technology	Voltage Class	Page	Product Name	Technology	Voltage Class	Page
BSA223SP	OptiMOS <sup>2</sup>	-20 V	41	BSS670S2L	OptiMOS <sup>2</sup>	55 V	40
BSC016N03LS G	OptiMOS <sup>2</sup>	30 V	38	BSS7728N	Planar MOSFET	60 V	40
BSC020N025S G	OptiMOS <sup>2</sup>	25 V	38	BSS83P	Planar MOSFET	-60 V	40
BSC020N03LS G	OptiMOS <sup>2</sup>	30 V	38	BSS84P	Planar MOSFET	-60 V	40
BSC022N03S G	OptiMOS <sup>2</sup>	30 V	38	BSS84PW	Planar MOSFET	-60 V	41
BSC024N025S G	OptiMOS <sup>2</sup>	25 V	38	BSS87	Planar MOSFET	240 V	40
BSC025N03LS G	OptiMOS <sup>2</sup>	30 V	38	BSV236SP	OptiMOS <sup>2</sup>	-20 V	41
BSC027N03S G	OptiMOS <sup>2</sup>	30 V	38	BSZ035N03LS G	OptiMOS <sup>2</sup>	30 V	38
BSC029N025S G	OptiMOS <sup>2</sup>	25 V	38	BSZ130N03LS G	OptiMOS <sup>2</sup>	30 V	38
BSC030N03LS G	OptiMOS <sup>2</sup>	30 V	38	BUZ30A	Planar MOSFET	200 V	29
BSC032N03S G	OptiMOS <sup>2</sup>	30 V	38	BUZ31	Planar MOSFET	200 V	29
BSC037N025S G	OptiMOS <sup>2</sup>	25 V	38	BUZ31	Planar MOSFET	200 V	31
BSC042N03LS G	OptiMOS <sup>2</sup>	30 V	38	BUZ32	Planar MOSFET	200 V	29
BSC042N03S G	OptiMOS <sup>2</sup>	30 V	38	BUZ73	Planar MOSFET	200 V	31
BSC048N025S G	OptiMOS <sup>2</sup>	25 V	38	BUZ73A	Planar MOSFET	200 V	31
BSC050N03LS G	OptiMOS <sup>2</sup>	30 V	38	IDD04S60C	ThinQI <sup>TM</sup> 2G	600 V	43
BSC052N03S G	OptiMOS <sup>2</sup>	30 V	38	IDT04S60C	ThinQI <sup>TM</sup> 2G	600 V	43
BSC059N03S G	OptiMOS <sup>2</sup>	30 V	38	IDT05S60C	ThinQI <sup>TM</sup> 2G	600 V	43
BSC060N03LS G	OptiMOS <sup>2</sup>	30 V	38	IDT06S60C	ThinQI <sup>TM</sup> 2G	600 V	43
BSC072N025S G	OptiMOS <sup>2</sup>	25 V	38	IDT08S60C	ThinQI <sup>TM</sup> 2G	600 V	43
BSC079N03S G	OptiMOS <sup>2</sup>	30 V	38	IDT10S60C	ThinQI <sup>TM</sup> 2G	600 V	43
BSC080N03LS G	OptiMOS <sup>2</sup>	30 V	38	IDT12S60C	ThinQI <sup>TM</sup> 2G	600 V	43
BSC085N025S G	OptiMOS <sup>2</sup>	25 V	38	IDT16S60C	ThinQI <sup>TM</sup> 2G	600 V	43
BSC094N03S G	OptiMOS <sup>2</sup>	30 V	38	IPA50R140CP	CoolMOS <sup>TM</sup> CP	500 V	27
BSC09CN10NS G	OptiMOS <sup>2</sup>	100 V	38	IPA50R199CP	CoolMOS <sup>TM</sup> CP	500 V	27
BSC100N03LS G	OptiMOS <sup>2</sup>	30 V	38	IPA50R250CP	CoolMOS <sup>TM</sup> CP	500 V	27
BSC106N025S G	OptiMOS <sup>2</sup>	25 V	38	IPA50R299CP	CoolMOS <sup>TM</sup> CP	500 V	27
BSC119N03S G	OptiMOS <sup>2</sup>	30 V	38	IPA50R350CP	CoolMOS <sup>TM</sup> CP	500 V	27
BSC11CN10NSF G	OptiMOS <sup>2</sup>	100 V	38	IPA50R399CP	CoolMOS <sup>TM</sup> CP	500 V	27
BSC120N03S G	OptiMOS <sup>2</sup>	30 V	38	IPA50R520CP	CoolMOS <sup>TM</sup> CP	500 V	27
BSC13CN10NS G	OptiMOS <sup>2</sup>	100 V	38	IPA60R125CP	CoolMOS <sup>TM</sup> CP	600 V	27
BSC17CN10NSF G	OptiMOS <sup>2</sup>	100 V	38	IPA60R165CP	CoolMOS <sup>TM</sup> CP	600 V	27
BSC20CN10NS G	OptiMOS <sup>2</sup>	100 V	38	IPA60R199CP	CoolMOS <sup>TM</sup> CP	600 V	27
BSC26CN10NSF G	OptiMOS <sup>2</sup>	100 V	38	IPA60R299CP	CoolMOS <sup>TM</sup> CP	600 V	27
BSD223P (dual)	OptiMOS <sup>2</sup>	-20 V	41	IPA60R385CP	CoolMOS <sup>TM</sup> CP	600 V	27
BSL207SP	OptiMOS <sup>2</sup>	-20 V	41	IPB02XN03L G	OptiMOS <sup>2</sup>	30 V	28
BSL211SP	OptiMOS <sup>2</sup>	-20 V	41	IPB034N03L G	OptiMOS <sup>2</sup>	30 V	28
BSL307SP	OptiMOS <sup>2</sup>	-30 V	41	IPB03N03LA G	OptiMOS <sup>2</sup>	25 V	28
BSO052N03S	OptiMOS <sup>2</sup>	30 V	37	IPB03N03LB G	OptiMOS <sup>2</sup>	30 V	28
BSO064N03S	OptiMOS <sup>2</sup>	30 V	37	IPB042N03L G	OptiMOS <sup>2</sup>	30 V	28
BSO072N03S	OptiMOS <sup>2</sup>	30 V	37	IPB048N06L G	OptiMOS <sup>2</sup>	60 V	28
BSO080P03S	OptiMOS <sup>2</sup>	-30 V	37	IPB04CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSO094N03S	OptiMOS <sup>2</sup>	30 V	37	IPB04CNE8N G	OptiMOS <sup>2</sup>	85 V	28
BSO104N03S	OptiMOS <sup>2</sup>	30 V	37	IPB04N03LA G	OptiMOS <sup>2</sup>	25 V	28
BSO119N03S	OptiMOS <sup>2</sup>	30 V	37	IPB04N03LB G	OptiMOS <sup>2</sup>	30 V	28
BSO130P03S	OptiMOS <sup>2</sup>	-30 V	37	IPB050N06N G	OptiMOS <sup>2</sup>	60 V	28
BSO150N03 (dual)	OptiMOS <sup>2</sup>	30 V	37	IPB051NE8N G	OptiMOS <sup>2</sup>	85 V	28
BSO200N03 (dual)	OptiMOS <sup>2</sup>	30 V	37	IPB055N03L G	OptiMOS <sup>2</sup>	30 V	28
BSO200N03S	OptiMOS <sup>2</sup>	30 V	37	IPB05CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSO200P03S	OptiMOS <sup>2</sup>	-30 V	37	IPB05N03LA G	OptiMOS <sup>2</sup>	25 V	28
BSO201SP	OptiMOS <sup>2</sup>	-20 V	37	IPB05N03LB G	OptiMOS <sup>2</sup>	30 V	28
BSO203P (dual)	OptiMOS <sup>2</sup>	-20 V	37	IPB065N03L G	OptiMOS <sup>2</sup>	30 V	28
BSO203Sp	OptiMOS <sup>2</sup>	-20 V	37	IPB065N06L G	OptiMOS <sup>2</sup>	60 V	28
BSO204P (dual)	OptiMOS <sup>2</sup>	-20 V	37	IPB06CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSO207P (dual)	OptiMOS <sup>2</sup>	-20 V	37	IPB06CNE8N G	OptiMOS <sup>2</sup>	85 V	28
BSO211P (dual)	OptiMOS <sup>2</sup>	-20 V	37	IPB06N03LA G	OptiMOS <sup>2</sup>	25 V	28
BSO300N03S	OptiMOS <sup>2</sup>	30 V	37	IPB06N03LB G	OptiMOS <sup>2</sup>	30 V	28
BSO301Sp	OptiMOS <sup>2</sup>	-30 V	37	IPB070N06L G	OptiMOS <sup>2</sup>	60 V	28
BSO303P (dual)	OptiMOS <sup>2</sup>	-30 V	37	IPB070N06N G	OptiMOS <sup>2</sup>	60 V	28
BSO303SP	OptiMOS <sup>2</sup>	-30 V	37	IPB080N03L G	OptiMOS <sup>2</sup>	30 V	28
BSO350N03 (dual)	OptiMOS <sup>2</sup>	30 V	37	IPB080N06N G	OptiMOS <sup>2</sup>	60 V	28
BSO612CV	Complementary	-60 V	37	IPB085N06L G	OptiMOS <sup>2</sup>	60 V	28
BSO612CV	Complementary	60 V	37	IPB08CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSO613SPV	Planar MOSFET	-60 V	37	IPB08CNE8N G	OptiMOS <sup>2</sup>	85 V	28
BSO615C	Complementary	-60 V	37	IPB091N06N G	OptiMOS <sup>2</sup>	60 V	28
BSO615C	Complementary	60 V	37	IPB096N03L G	OptiMOS <sup>2</sup>	30 V	28
BSO615N (dual)	Planar MOSFET	60 V	37	IPB09N03LA G	OptiMOS <sup>2</sup>	25 V	28
BSP123	Planar MOSFET	100 V	39	IPB10N03LB G	OptiMOS <sup>2</sup>	30 V	28
BSP125	Planar MOSFET	600 V	39	IPB110N06L G	OptiMOS <sup>2</sup>	60 V	28
BSP129	Planar MOSFET	240 V	42	IPB114N03LB G	OptiMOS <sup>2</sup>	30 V	28
BSP135	Planar MOSFET	600 V	42	IPB11N03LA G	OptiMOS <sup>2</sup>	25 V	28
BSP149	Planar MOSFET	200 V	42	IPB120N06N G	OptiMOS <sup>2</sup>	60 V	28
BSP170P	Planar MOSFET	-60 V	39	IPB12CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSP171P	Planar MOSFET	-60 V	39	IPB12CNE8N G	OptiMOS <sup>2</sup>	85 V	28
BSP295	Planar MOSFET	60 V	39	IPB13N03LB G	OptiMOS <sup>2</sup>	30 V	28
BSP296	Planar MOSFET	100 V	39	IPB147N03L G	OptiMOS <sup>2</sup>	30 V	28
BSP297	Planar MOSFET	200 V	39	IPB14N03LA G	OptiMOS <sup>2</sup>	25 V	28
BSP298	Planar MOSFET	400 V	39	IPB16CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSP299	Planar MOSFET	500 V	39	IPB16CNE8N G	OptiMOS <sup>2</sup>	85 V	28
BSP300	Planar MOSFET	800 V	39	IPB26CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSP315P	Planar MOSFET	-60 V	39	IPB26CNE8N G	OptiMOS <sup>2</sup>	85 V	28
BSP316P	Planar MOSFET	-100 V	39	IPB35CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSP317P	Planar MOSFET	-250 V	39	IPB50CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSP318S	Planar MOSFET	60 V	39	IPB50R140CP	CoolMOS <sup>TM</sup> CP	500 V	29
BSP320S	Planar MOSFET	60 V	39	IPB50R199CP	CoolMOS <sup>TM</sup> CP	500 V	29
BSP321P	Planar MOSFET	-100 V	39	IPB50R250CP	CoolMOS <sup>TM</sup> CP	500 V	29
BSP322P	Planar MOSFET	-100 V	39	IPB50R299CP	CoolMOS <sup>TM</sup> CP	500 V	29
BSP324	Planar MOSFET	400 V	39	IPB60R099CP	CoolMOS <sup>TM</sup> CP	600 V	29
BSP372	Planar MOSFET	100 V	39	IPB60R165CP	CoolMOS <sup>TM</sup> CP	600 V	29
BSP373	Planar MOSFET	100 V	39	IPB80CN10N G	OptiMOS <sup>2</sup>	100 V	29
BSP613P	Planar MOSFET	-60 V	39	IPB86N03LA G	OptiMOS <sup>2</sup>	25 V	28
BSP88	Planar MOSFET	240 V	39	IPD022N03L G	OptiMOS <sup>2</sup>	30 V	32
BSP89	Planar MOSFET	240 V	39	IPD031N03L G	OptiMOS <sup>2</sup>	30 V	32
BSP92P	Planar MOSFET	-250 V	39	IPD03N03LA G	OptiMOS <sup>2</sup>	25 V	32
BSR315P	Planar MOSFET	-60 V	40	IPD03N03LB G	OptiMOS <sup>2</sup>	30 V	32
BSR316	Planar MOSFET	-100 V	40	IPD040N03L G	OptiMOS <sup>2</sup>	30 V	32
BSR92P	Planar MOSFET	-250 V	40	IPD04N03LA G	OptiMOS <sup>2</sup>	25 V	32
BSS119	Planar MOSFET	100 V	40	IPD04N03LB G	OptiMOS <sup>2</sup>	30 V	32
BSS123	Planar MOSFET	100 V	40	IPD050N03L G	OptiMOS <sup>2</sup>	30 V	32
BSS126	Planar MOSFET	600 V	42	IPD05N03LA G	OptiMOS <sup>2</sup>	25 V	32
BSS127	Planar MOSFET	600 V	39	IPD05N03LB G	OptiMOS <sup>2</sup>	30 V	32
BSS131	Planar MOSFET	240 V	40	IPD060N03L G	OptiMOS <sup>2</sup>	30 V	32
BSS138N	Planar MOSFET	60 V	40	IPD060N03LB G	OptiMOS <sup>2</sup>	25 V	32
BSS138W	Planar MOSFET	60 V	41	IPD06N03LA G	OptiMOS <sup>2</sup>	30 V	32
BSS139	Planar MOSFET	240 V	42	IPD075N03L G	OptiMOS <sup>2</sup>	30 V	32
BSS159N	Planar MOSFET	60 V	42	IPD090N03L G	OptiMOS <sup>2</sup>	30 V	32
BSS169	Planar MOSFET	100 V	42	IPD09N03LA G	OptiMOS <sup>2</sup>	25 V	32
BSS192P	Planar MOSFET	-250 V	40	IPD09N03LB G	OptiMOS <sup>2</sup>	30 V	32
BSS209PW	OptiMOS <sup>2</sup>	-20 V	41	IPD105N03L G	OptiMOS <sup>2</sup>	30 V	32
BSS223PW	OptiMOS <sup>2</sup>	-20 V	41	IPD10N03LA G	OptiMOS <sup>2</sup>	25 V	32
BSS225	Planar MOSFET	600 V	39	IPD127N06L G	OptiMOS <sup>2</sup>	60 V	33

Product Name	Technology	Voltage Class	Page	Product Name	Technology	Voltage Class	Page
IPD12CN10N G	OptiMOS <sup>®</sup> 2	100 V	33	IPP091No6N G	OptiMOS <sup>®</sup>	60 V	25
IPD12CNE8N G	OptiMOS <sup>®</sup> 2	85 V	33	IPP096No3L G	OptiMOS <sup>®</sup> 3	30 V	24
IPD12No3LB G	OptiMOS <sup>®</sup> 2	30 V	32	IPP09No3LA	OptiMOS <sup>®</sup> 2	25 V	24
IPD135No3L G	OptiMOS <sup>®</sup> 3	30 V	32	IPP10No3LB G	OptiMOS <sup>®</sup> 2	30 V	24
IPD13No3LA G	OptiMOS <sup>®</sup> 2	25 V	32	IPP110No6L G	OptiMOS <sup>®</sup>	60 V	25
IPD144No6N G	OptiMOS <sup>®</sup>	60 V	33	IPP114No3L G	OptiMOS <sup>®</sup> 3	30 V	24
IPD14No3LB G	OptiMOS <sup>®</sup> 2	30 V	32	IPP11No3LA	OptiMOS <sup>®</sup> 2	25 V	24
IPD16CN10N G	OptiMOS <sup>®</sup> 2	100 V	33	IPP120No6N G	OptiMOS <sup>®</sup>	60 V	25
IPD16CNE8N G	OptiMOS <sup>®</sup> 2	85 V	33	IPP12CN10N G	OptiMOS <sup>®</sup> 2	100 V	25
IPD230No6L G	OptiMOS <sup>®</sup>	60 V	33	IPP12CNE8N G	OptiMOS <sup>®</sup> 2	85 V	25
IPD230No6N G	OptiMOS <sup>®</sup>	60 V	33	IPP13No3LB G	OptiMOS <sup>®</sup> 2	30 V	24
IPD25CN10N G	OptiMOS <sup>®</sup> 2	100 V	33	IPP147No3L G	OptiMOS <sup>®</sup> 3	30 V	24
IPD25CNE8N G	OptiMOS <sup>®</sup> 2	85 V	33	IPP14No3LA	OptiMOS <sup>®</sup> 2	25 V	24
IPD33CN10N G	OptiMOS <sup>®</sup> 2	100 V	33	IPP15No3LB G	OptiMOS <sup>®</sup> 2	30 V	24
IPD350No6L G 1)	OptiMOS <sup>®</sup>	60 V	33	IPP16CN10N G	OptiMOS <sup>®</sup> 2	100 V	25
IPD400No6N G	OptiMOS <sup>®</sup>	60 V	33	IPP16CNE8N G	OptiMOS <sup>®</sup> 2	85 V	25
IPD49CN10N G	OptiMOS <sup>®</sup> 2	100 V	33	IPP26CN10N G	OptiMOS <sup>®</sup> 2	100 V	25
IPD50R399CP	CoolMOS <sup>™</sup> CP	500 V	33	IPP26CNE8N G	OptiMOS <sup>®</sup> 2	85 V	25
IPD50R520CP	CoolMOS <sup>™</sup> CP	500 V	33	IPP35CN10N G	OptiMOS <sup>®</sup> 2	100 V	25
IPD60R385CP	CoolMOS <sup>™</sup> CP	600 V	33	IPP48No6L G	OptiMOS <sup>®</sup>	60 V	25
IPD640No6L G	OptiMOS <sup>®</sup>	60 V	33	IPP50CN10N G	OptiMOS <sup>®</sup> 2	100 V	25
IPD64CN10N G	OptiMOS <sup>®</sup> 2	100 V	33	IPP50R140CP	CoolMOS <sup>™</sup> CP	500 V	25
IPD78CN10N G	OptiMOS <sup>®</sup> 2	100 V	33	IPP50R199CP	CoolMOS <sup>™</sup> CP	500 V	25
IPD800No6N G	OptiMOS <sup>®</sup>	60 V	33	IPP50R250CP	CoolMOS <sup>™</sup> CP	500 V	25
IPDH4No3LA G	OptiMOS <sup>®</sup> 2	25 V	32	IPP50R299CP	CoolMOS <sup>™</sup> CP	500 V	25
IPDH5No3LA G	OptiMOS <sup>®</sup> 2	25 V	32	IPP50R350CP	CoolMOS <sup>™</sup> CP	500 V	25
IPDH6No3LA G	OptiMOS <sup>®</sup> 2	25 V	32	IPP50R399CP	CoolMOS <sup>™</sup> CP	500 V	25
IPDH9No3LA G	OptiMOS <sup>®</sup> 2	25 V	32	IPP50R520CP	CoolMOS <sup>™</sup> CP	500 V	25
IPF039No3L G	OptiMOS <sup>®</sup> 3	30 V	34	IPP60R099CP	CoolMOS <sup>™</sup> CP	600 V	26
IPF04No3LA G	OptiMOS <sup>®</sup> 2	25 V	34	IPP60R125CP	CoolMOS <sup>™</sup> CP	600 V	26
IPF04No3LB G	OptiMOS <sup>®</sup> 2	30 V	34	IPP60R165CP	CoolMOS <sup>™</sup> CP	600 V	26
IPF050No3L G	OptiMOS <sup>®</sup> 3	30 V	34	IPP60R199CP	CoolMOS <sup>™</sup> CP	600 V	26
IPF05No3LA G	OptiMOS <sup>®</sup> 2	25 V	34	IPP60R299CP	CoolMOS <sup>™</sup> CP	600 V	26
IPF060No3L G	OptiMOS <sup>®</sup> 3	30 V	34	IPP60R385CP	CoolMOS <sup>™</sup> CP	600 V	26
IPF06No3LA G	OptiMOS <sup>®</sup> 2	25 V	34	IPP80CN10N G	OptiMOS <sup>®</sup> 2	100 V	25
IPF06No3LB G	OptiMOS <sup>®</sup> 2	30 V	34	IPS031No3L G	OptiMOS <sup>®</sup> 3	30 V	36
IPF075No3L G	OptiMOS <sup>®</sup> 3	30 V	34	IPS03No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPF090No3L G	OptiMOS <sup>®</sup> 3	30 V	34	IPS03No3LB G	OptiMOS <sup>®</sup> 2	30 V	36
IPF09No3LA G	OptiMOS <sup>®</sup> 2	25 V	34	IPS040No3L G	OptiMOS <sup>®</sup> 3	30 V	36
IPF09No3LB G	OptiMOS <sup>®</sup> 2	30 V	34	IPS04No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPF105No3L G	OptiMOS <sup>®</sup> 3	30 V	34	IPS04No3LB G	OptiMOS <sup>®</sup> 2	30 V	36
IPF10No3LA G	OptiMOS <sup>®</sup> 2	25 V	34	IPS050No3L G	OptiMOS <sup>®</sup> 3	30 V	36
IPF12No3LB G	OptiMOS <sup>®</sup> 2	30 V	34	IPS05No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPF135No3L G	OptiMOS <sup>®</sup> 3	30 V	34	IPS05No3LB G	OptiMOS <sup>®</sup> 2	30 V	36
IPF13No3LA G	OptiMOS <sup>®</sup> 2	25 V	34	IPS060No3L G	OptiMOS <sup>®</sup> 3	30 V	36
IPF15No3LB G	OptiMOS <sup>®</sup> 2	30 V	34	IPS06No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPFH6No3LA G	OptiMOS <sup>®</sup> 2	25 V	34	IPS06No3LB G	OptiMOS <sup>®</sup> 2	30 V	36
IPJ03No3LA	OptiMOS <sup>®</sup> 2	25 V	30	IPS075No3L G	OptiMOS <sup>®</sup> 3	30 V	36
IPJ03No3LB G	OptiMOS <sup>®</sup> 2	30 V	30	IPS090No3L G	OptiMOS <sup>®</sup> 3	30 V	36
IPJ04CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPS09No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPJ04CNE8N G	OptiMOS <sup>®</sup> 2	85 V	30	IPS09No3LB G	OptiMOS <sup>®</sup> 2	30 V	36
IPJ04No3LA	OptiMOS <sup>®</sup> 2	25 V	30	IPS105No3L G	OptiMOS <sup>®</sup> 3	30 V	36
IPJ04No3LB G	OptiMOS <sup>®</sup> 2	30 V	30	IPS10No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPJ054NE8N G	OptiMOS <sup>®</sup> 2	85 V	30	IPS12No3LB G	OptiMOS <sup>®</sup> 2	30 V	36
IPJ05CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPS135No3L G	OptiMOS <sup>®</sup> 3	30 V	36
IPJ05No3LA	OptiMOS <sup>®</sup> 2	25 V	30	IPS13No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPJ05No3LB G	OptiMOS <sup>®</sup> 2	30 V	30	IPS15No3LB G	OptiMOS <sup>®</sup> 2	30 V	36
IPJ06CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPS50R520CP	CoolMOS <sup>™</sup> CP	500 V	36
IPJ06CNE8N G	OptiMOS <sup>®</sup> 2	85 V	30	IPSH4No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPJ06No3LA	OptiMOS <sup>®</sup> 2	25 V	30	IPSH5No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPJ070No6N G	OptiMOS <sup>®</sup>	60 V	30	IPSH6No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPJ07No3LB G	OptiMOS <sup>®</sup> 2	30 V	30	IPSH6No3LB G	OptiMOS <sup>®</sup> 2	30 V	36
IPJ08CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPSH9No3LA G	OptiMOS <sup>®</sup> 2	25 V	36
IPJ08CNE8N G	OptiMOS <sup>®</sup> 2	85 V	30	IPU039No3L G	OptiMOS <sup>®</sup> 3	30 V	35
IPJ09No3LA	OptiMOS <sup>®</sup> 2	25 V	30	IPU04No3LA G	OptiMOS <sup>®</sup> 2	25 V	35
IPJ10No3LB G	OptiMOS <sup>®</sup> 2	30 V	30	IPU04No3LB G	OptiMOS <sup>®</sup> 2	30 V	35
IPJ11No3LA	OptiMOS <sup>®</sup> 2	25 V	30	IPU050No3L G	OptiMOS <sup>®</sup> 3	30 V	35
IPJ12CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPU05No3LA G	OptiMOS <sup>®</sup> 2	25 V	35
IPJ12CNE8N G	OptiMOS <sup>®</sup> 2	85 V	30	IPU060No3L G	OptiMOS <sup>®</sup> 3	30 V	35
IPJ13No3LB G	OptiMOS <sup>®</sup> 2	30 V	30	IPU06No3LA G	OptiMOS <sup>®</sup> 2	25 V	35
IPJ14No3LA	OptiMOS <sup>®</sup> 2	25 V	30	IPU075No3L G	OptiMOS <sup>®</sup> 3	30 V	35
IPJ15No3LB G	OptiMOS <sup>®</sup> 2	30 V	30	IPU090No3L G	OptiMOS <sup>®</sup> 3	30 V	35
IPJ16CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPU09No3LA G	OptiMOS <sup>®</sup> 2	25 V	35
IPJ16CNE8N G	OptiMOS <sup>®</sup> 2	85 V	30	IPU09No3LB G	OptiMOS <sup>®</sup> 2	30 V	35
IPJ26CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPU105No3L G	OptiMOS <sup>®</sup> 3	30 V	35
IPJ26CNE8N G	OptiMOS <sup>®</sup> 2	85 V	30	IPU10No3LA G	OptiMOS <sup>®</sup> 2	25 V	35
IPJ35CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPU12No3LB G	OptiMOS <sup>®</sup> 2	30 V	35
IPJ50CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPU135No3L G	OptiMOS <sup>®</sup> 3	30 V	35
IPJ50R350CP	CoolMOS <sup>™</sup> CP	500 V	31	IPU13No3LA G	OptiMOS <sup>®</sup> 2	25 V	35
IPJ50R399CP	CoolMOS <sup>™</sup> CP	500 V	31	IPU15No3LB G	OptiMOS <sup>®</sup> 2	30 V	35
IPJ60R199CP	CoolMOS <sup>™</sup> CP	600 V	31	IPU26CN10N G	OptiMOS <sup>®</sup> 2	100 V	35
IPJ60R299CP	CoolMOS <sup>™</sup> CP	600 V	31	IPU26CNE8N G	OptiMOS <sup>®</sup> 2	85 V	35
IPJ60R385CP	CoolMOS <sup>™</sup> C3	600 V	31	IPU35CN10N G	OptiMOS <sup>®</sup> 2	100 V	35
IPJ80CN10N G	OptiMOS <sup>®</sup> 2	100 V	30	IPU49CN10N G	OptiMOS <sup>®</sup> 2	100 V	35
IPP034No3L G	OptiMOS <sup>®</sup> 3	30 V	24	IPU64CN10N G	OptiMOS <sup>®</sup> 2	100 V	35
IPP03No3LA	OptiMOS <sup>®</sup> 2	25 V	24	IPU78CN10N G	OptiMOS <sup>®</sup> 2	100 V	35
IPP03No3LB G	OptiMOS <sup>®</sup> 2	30 V	24	IPUH6No3LA G	OptiMOS <sup>®</sup> 2	25 V	35
IPP042No3L G	OptiMOS <sup>®</sup> 3	30 V	24	IPUH6No3LB G	OptiMOS <sup>®</sup> 2	30 V	35
IPP04CN10N G	OptiMOS <sup>®</sup> 2	100 V	25	IPW50R140CP	CoolMOS <sup>™</sup> CP	500 V	23
IPP04CNE8N G	OptiMOS <sup>®</sup> 2	85 V	25	IPW50R199CP	CoolMOS <sup>™</sup> CP	500 V	23
IPP04No3LA	OptiMOS <sup>®</sup> 2	25 V	24	IPW60R045CP	CoolMOS <sup>™</sup> CP	600 V	23
IPP04No3LB G	OptiMOS <sup>®</sup> 2	30 V	24	IPW60R099CP	CoolMOS <sup>™</sup> CP	600 V	23
IPP050No6N G	OptiMOS <sup>®</sup>	60 V	25	IPW60R125CP	CoolMOS <sup>™</sup> CP	600 V	23
IPP054NE8N G	OptiMOS <sup>®</sup> 2	85 V	25	IPW60R165CP	CoolMOS <sup>™</sup> CP	600 V	23
IPP05No3L G	OptiMOS <sup>®</sup> 3	30 V	24	IPW60R199CP	CoolMOS <sup>™</sup> CP	600 V	23
IPP05CN10N G	OptiMOS <sup>®</sup> 2	100 V	25	SDP10S30	ThinQI <sup>™</sup>	300 V	43
IPP05No3LA	OptiMOS <sup>®</sup> 2	25 V	24	SDP20S30	ThinQI <sup>™</sup>	300 V	43
IPP05No3LB G	OptiMOS <sup>®</sup> 2	30 V	24	SDT10S30	ThinQI <sup>™</sup>	300 V	43
IPP065No3L G	OptiMOS <sup>®</sup> 3	30 V	24	SN7002N	Planar MOSFET	60 V	40
IPP065No6L G	OptiMOS <sup>®</sup>	60 V	25	SN7002W	Planar MOSFET	60 V	41
IPP06CN10N G	OptiMOS <sup>®</sup> 2	100 V	25	SPA02N80C3	CoolMOS <sup>™</sup> C3	800 V	27
IPP06CNE8N G	OptiMOS <sup>®</sup> 2	85 V	25	SPA03N60C3	CoolMOS <sup>™</sup> C3	600 V	27
IPP06No3LA	OptiMOS <sup>®</sup> 2	25 V	24	SPA04N50C3	CoolMOS <sup>™</sup> C3	500 V	27
IPP070No6L G	OptiMOS <sup>®</sup>	60 V	25	SPA04N60C3	CoolMOS <sup>™</sup> C3	600 V	27
IPP070No6N G	OptiMOS <sup>®</sup>	60 V	25	SPA04N80C3	CoolMOS <sup>™</sup> C3	800 V	27
IPP07No3LB G	OptiMOS <sup>®</sup> 2	30 V	24	SPA06N60C3	CoolMOS <sup>™</sup> C3	600 V	27
IPP080No3L G	OptiMOS <sup>®</sup> 3	30 V	24	SPA06N80C3	CoolMOS <sup>™</sup> C3	800 V	27
IPP080No6N G	OptiMOS <sup>®</sup>	60 V	25	SPA07N60C3	CoolMOS <sup>™</sup> C3	600 V	27
IPP085No6L G	OptiMOS <sup>®</sup>	60 V	25	SPA07N60CFD	CoolMOS <sup>™</sup> CFD	600 V	27
IPP08CN10N G	OptiMOS <sup>®</sup> 2	100 V	25	SPA07N65C3	CoolMOS <sup>™</sup> C3	650 V	27
IPP08CNE8N G	OptiMOS <sup>®</sup> 2	85 V	25	SPA08N50C3	CoolMOS <sup>™</sup> C3	500 V	27

# Alphanumeric Listing

Product Name	Technology	Voltage Class	Page	Product Name	Technology	Voltage Class	Page
SPA08N80C3	CoolMOS™C3	800 V	27	SPP/B/110N10L	Planar MOSFET	100 V	29
SPA11N60C3	CoolMOS™C3	600 V	27	SPP/B/121N10	Planar MOSFET	100 V	29
SPA11N60CFD	CoolMOS™CFD	600 V	27	SPP/B/135N10	Planar MOSFET	100 V	29
SPA11N65C3	CoolMOS™C3	650 V	27	SPP/B/147N10	Planar MOSFET	100 V	29
SPA11N80C3	CoolMOS™C3	800 V	27	SPP/B/180N10L	Planar MOSFET	100 V	29
SPA12N50C3	CoolMOS™C3	500 V	27	SPPo2N60C3	CoolMOS™C3	600 V	26
SPA15N60C3	CoolMOS™C3	600 V	27	SPPo2N60S5	CoolMOS™S5	600 V	26
SPA15N60CFD	CoolMOS™CFD	600 V	27	SPPo2N80C3	CoolMOS™C3	800 V	26
SPA16N50C3	CoolMOS™C3	500 V	27	SPPo3N60C3	CoolMOS™C3	600 V	26
SPA17N80C3	CoolMOS™C3	800 V	27	SPPo3N60S5	CoolMOS™S5	600 V	26
SPA20N60C3	CoolMOS™C3	600 V	27	SPPo4N50C3	CoolMOS™C3	500 V	25
SPA20N60CFD	CoolMOS™CFD	600 V	27	SPPo4N60C3	CoolMOS™C3	600 V	26
SPA20N65C3	CoolMOS™C3	650 V	27	SPPo4N60S5	CoolMOS™S5	600 V	26
SPA21N50C3	CoolMOS™C3	500 V	27	SPPo4N80C3	CoolMOS™C3	800 V	26
SPB02N60C3	CoolMOS™C3	600 V	29	SPPo6N60C3	CoolMOS™C3	600 V	26
SPB02N60S5	CoolMOS™S5	600 V	29	SPPo6N80C3	CoolMOS™C3	800 V	26
SPB03N60C3	CoolMOS™C3	600 V	29	SPPo7N60C3	CoolMOS™C3	600 V	26
SPB03N60S5	CoolMOS™S5	600 V	29	SPPo7N60CFD	CoolMOS™CFD	600 V	26
SPB04N50C3	CoolMOS™C3	500 V	29	SPPo7N60S5	CoolMOS™S5	600 V	26
SPB04N60C3	CoolMOS™C3	600 V	29	SPPo7N65C3	CoolMOS™C3	650 V	26
SPB04N60S5	CoolMOS™S5	600 V	29	SPPo8N50C3	CoolMOS™C3	500 V	25
SPB07N60C3	CoolMOS™C3	600 V	29	SPPo8N80C3	CoolMOS™C3	800 V	26
SPB07N60S5	CoolMOS™S5	600 V	29	SPPo8Po6P	Planar MOSFET	-60 V	24
SPB08Po6P	Planar MOSFET	-60 V	28	SPP11N60C3	CoolMOS™C3	600 V	26
SPB11N60C3	CoolMOS™C3	600 V	29	SPP11N60CFD	CoolMOS™CFD	600 V	26
SPB11N60S5	CoolMOS™S5	600 V	29	SPP11N60S5	CoolMOS™S5	600 V	26
SPB12N50C3	CoolMOS™C3	500 V	29	SPP11N65C3	CoolMOS™C3	650 V	26
SPB16N50C3	CoolMOS™C3	500 V	29	SPP11N80C3	CoolMOS™C3	800 V	26
SPB17N80C3	CoolMOS™C3	800 V	29	SPP12N50C3	CoolMOS™C3	500 V	25
SPB18Po6P	Planar MOSFET	-60 V	28	SPP15N60C3	CoolMOS™C3	600 V	26
SPB20N60C3	CoolMOS™C3	600 V	29	SPP15N60CFD	CoolMOS™CFD	600 V	26
SPB20N60S5	CoolMOS™S5	600 V	29	SPP15P10P G	Planar MOSFET	-100 V	24
SPB21N50C3	CoolMOS™C3	500 V	29	SPP15P10PL G	Planar MOSFET	-100 V	24
SPB80Po6P	Planar MOSFET	-60 V	28	SPP16N50C3	CoolMOS™C3	500 V	25
SPD/U11N10	Planar MOSFET	100 V	35	SPP17N80C3	CoolMOS™C3	800 V	26
SPD01N60C3	CoolMOS™C3	600 V	33	SPP18Po6P	Planar MOSFET	-60 V	24
SPD02N50C3	CoolMOS™C3	500 V	33	SPP20N60C3	CoolMOS™C3	600 V	26
SPD02N60C3	CoolMOS™C3	600 V	33	SPP20N60CFD	CoolMOS™CFD	600 V	26
SPD02N60S5	CoolMOS™S5	600 V	33	SPP20N60S5	CoolMOS™S5	600 V	26
SPD02N80C3	CoolMOS™C3	800 V	33	SPP20N65C3	CoolMOS™C3	650 V	26
SPD03N50C3	CoolMOS™C3	500 V	33	SPP21N50C3	CoolMOS™C3	500 V	25
SPD03N60C3	CoolMOS™C3	600 V	33	SPP24N60C3	CoolMOS™C3	600 V	26
SPD03N60S5	CoolMOS™S5	600 V	33	SPP80Po6P	Planar MOSFET	-60 V	24
SPD04N50C3	CoolMOS™C3	500 V	33	SPS01N60C3	CoolMOS™C3	600 V	36
SPD04N60C3	CoolMOS™C3	600 V	33	SPS02N50C3	CoolMOS™C3	500 V	36
SPD04N60S5	CoolMOS™S5	600 V	33	SPS02N60C3	CoolMOS™C3	600 V	36
SPD04N80C3	CoolMOS™C3	800 V	33	SPS03N50C3	CoolMOS™C3	500 V	36
SPD04P10P G	Planar MOSFET	-100 V	32	SPS03N60C3	CoolMOS™C3	600 V	36
SPD04P10PL G	Planar MOSFET	-100 V	32	SPS04N50C3	CoolMOS™C3	500 V	36
SPD06N60C3	CoolMOS™C3	600 V	33	SPS04N60C3	CoolMOS™C3	600 V	36
SPD06N80C3	CoolMOS™C3	800 V	33	SPU01N60C3	CoolMOS™C3	600 V	35
SPD07N20	Planar MOSFET	200 V	33	SPU02N60C3	CoolMOS™C3	600 V	35
SPD07N60C3	CoolMOS™C3	600 V	33	SPU02N60S5	CoolMOS™S5	600 V	35
SPD07N60S5	CoolMOS™S5	600 V	33	SPU03N60C3	CoolMOS™C3	600 V	35
SPD08N50C3	CoolMOS™C3	500 V	33	SPU03N60S5	CoolMOS™S5	600 V	35
SPD08Po6P	Planar MOSFET	-60 V	32	SPU04N60C3	CoolMOS™C3	600 V	35
SPD09Po6P	Planar MOSFET	-60 V	32	SPU04N60S5	CoolMOS™S5	600 V	35
SPD15P10P G	Planar MOSFET	-100 V	32	SPU07N60S5	CoolMOS™S5	600 V	35
SPD15P10PL G	Planar MOSFET	-100 V	32	SPU08Po6P	Planar MOSFET	-60 V	35
SPD18Po6P	Planar MOSFET	-60 V	32	SPU09Po6P	Planar MOSFET	-60 V	35
SPD30Po6P	Planar MOSFET	-60 V	32	SPU18Po6P	Planar MOSFET	-60 V	35
SPD35N10	Planar MOSFET	100 V	33	SPU30Po6P	Planar MOSFET	-60 V	35
SPD50Po3L G	OptiMOS™2	-30 V	32	SPW11N60C3	CoolMOS™C3	600 V	23
SPL07N60C3	CoolMOS™CP	600 V	31	SPW11N60CFD	CoolMOS™CFD	600 V	23
SPL07N60S5	CoolMOS™S5	600 V	31	SPW11N60S5	CoolMOS™S5	600 V	23
SPL07N65C3	CoolMOS™C3	650 V	31	SPW11N80C3	CoolMOS™C3	800 V	23
SPL08N50C3	CoolMOS™C3	500 V	31	SPW12N50C3	CoolMOS™C3	500 V	23
SPL08N80C3	CoolMOS™C3	800 V	31	SPW15N60C3	CoolMOS™C3	600 V	23
SPL11N60C3	CoolMOS™C3	600 V	31	SPW15N60CFD	CoolMOS™CFD	600 V	23
SPL11N60S5	CoolMOS™S5	600 V	31	SPW16N50C3	CoolMOS™C3	500 V	23
SPL11N65C3	CoolMOS™C3	650 V	31	SPW17N60C3	CoolMOS™C3	800 V	23
SPL12N50C3	CoolMOS™C3	500 V	31	SPW20N60C3	CoolMOS™C3	600 V	23
SPL15N60C3	CoolMOS™C3	600 V	31	SPW20N60CFD	CoolMOS™CFD	600 V	23
SPL16N50C3	CoolMOS™C3	500 V	31	SPW20N60S5	CoolMOS™S5	600 V	23
SPL20N60C3	CoolMOS™C3	600 V	31	SPW21N50C3	CoolMOS™C3	500 V	23
SPL20N65C3	CoolMOS™C3	650 V	31	SPW24N60C3	CoolMOS™C3	600 V	23
SPL21N50C3	CoolMOS™C3	500 V	31	SPW24N60CFD	CoolMOS™CFD	600 V	23
SPN01N60C3	CoolMOS™C3	600 V	39	SPW32N50C3	CoolMOS™C3	500 V	23
SPN02N60C3	CoolMOS™C3	600 V	39	SPW35N60C3	CoolMOS™C3	600 V	23
SPN02N60S5	CoolMOS™S5	600 V	39	SPW35N60CFD	CoolMOS™CFD	600 V	23
SPN03N60C3	CoolMOS™C3	600 V	39	SPW47N60C3	CoolMOS™C3	600 V	23
SPN03N60S5	CoolMOS™S5	600 V	39	SPW47N60CFD	CoolMOS™CFD	600 V	23
SPN04N60S5	CoolMOS™S5	600 V	39	SPW52N50C3	CoolMOS™C3	500 V	23
SPP/B/110N10	Planar MOSFET	100 V	29				

# Package Overview

D-PAK (TO252) 	Reverse D-PAK (Reverse TO252) 	D <sup>2</sup> -PAK (TO263) 	DIP-7 
DIP-8 	DIP-14 	DIP-20 	SO-8 
SO-14 	SO-16/12 	SO-16 	SO-18 
SO-20 	SO-32 	I-PAK (TO251) 	I-PAK Short Leads (TO251 SL) 
I <sup>2</sup> -PAK (TO262) 	SC59 	SC75 	SOT23 
SOT89 	SOT223 	SOT323 	SOT363 
SuperS08 	S308 	TSOP6 	TO220 (2-leg) 
TO220 (3-leg) 	TO220 FullPAK 	TO220-6-46 	TO220-6-47 
TO247 	TSSOP-28 	VQFN-40 	

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