

Features

- Trench Power MV MOSFET technology
- High density cell design for Low RDS(ON)
- · High Speed switching
- · Epoxy Meets UL 94 V-0 Flammability Rating
- · Moisture Sensitivity Level 3
- Halogen Free. "Green" Device(1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

Operating Junction Temperature Range : -55°C to +150°C

• Storage Temperature Range: -55°C to +150°C

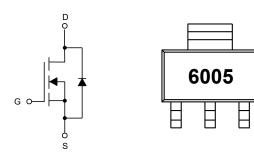
• Thermal Resistance: 50°C/W Junction to Ambient

Parameter	Symbol	Rating	Unit	
Drain-Source Voltage		V _{DS}	60	V
Gate-Source Volltage		V _{GS}	±20	V
Continuous Drain Current	T _A =25°C		5	Α
	T _A =70°C	I _D	4	Α
Pulsed Drain Current (2)		I _{DM}	25	Α
Total Power Dissipation		P _D	2.5	W

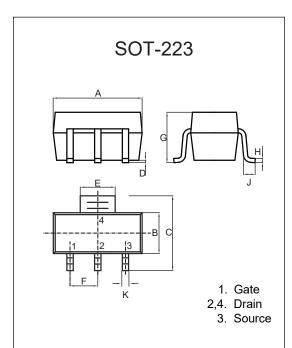
Note:

- 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 2. Pulse Test: Pulse Width≤300µs,Duty Cycle ≤2%.

Internal Structure and Marking Code



N-CHANNEL MOSFET



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOTE
Α	0.248	0.264	6.30	6.70	
В	0.130	0.146	3.30	3.70	
С	0.264	0.287	6.70	7.30	
D	0.001	0.004	0.02	0.10	
E	0.114	0.122	2.90	3.10	
F	0.091		2.30		TYP.
G		0.071		1.80	
Н	0.009	0.014	0.23	0.35	
J	0.030		0.75		
K	0.026	0.033	0.66	0.84	

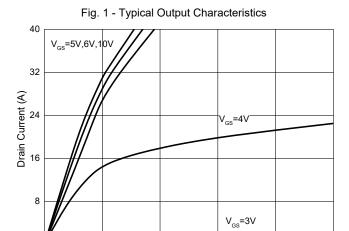


Electrical Characteristics @ 25°C (Unless Otherwise Specified)

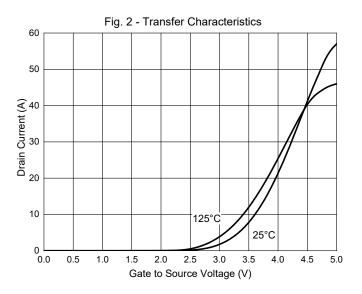
Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V_{GS} =0V, I_{D} =250 μ A	60			V
Gate-Source Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V, V _{GS} =0V			1	μΑ
Gate-Threshold Voltage	V _{GS(th)}	$V_{DS}=V_{GS}$, $I_{D}=250\mu A$	1.0	1.5	2.5	V
Drain-Source On-Resistance		V _{GS} =10V, I _D =5.0A		35	44	mΩ
	$R_{DS(on)}$	V _{GS} =4.5V, I _D =4.0A		39	49	mΩ
Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _S =5A		0.8	1.2	V
Dynamic Characteristics						
Input Capacitance	C _{iss}			1018		
Output Capacitance	C _{oss}	V _{DS} =30V,V _{GS} =0V,f=1MHz		70		pF
Reverse Transfer Capacitance	C _{rss}			62		
Switching Characteristics						
Total Gate Charge	Q_g			26		
Gate-Source Charge	Q_{gs}	V _{DS} =30V,V _{GS} =10V,I _D =10A		5.4		0
Gate-Drain Charge	Q_{gd}			6.5		- nC
Reverse Recovery Charge	Q_{rr}	L 004 E/H 5004/		11.7		
Reverse Recovery Time	t _{rr}	I _F =20A,di/dt=500A/μs		23		
Turn-On Delay Time	t _{d(on)}			10		
Turn-On Rise Time	t _r	V _{GS} =10V,V _{DS} =30V,I _D =2		20		ns
Turn-Off Delay Time	t _{d(off)}	$A,R_g=3\Omega$		29		
Turn-Off Fall Time	t _f			21		1

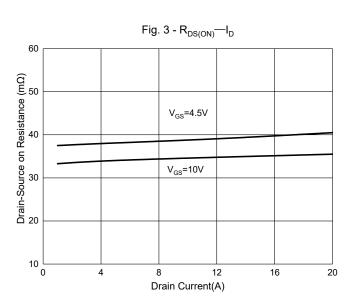


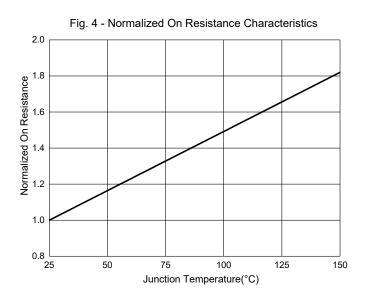
Curve Characteristics

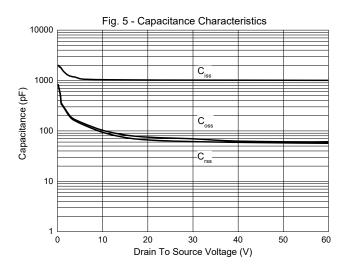


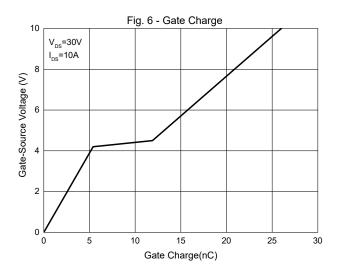
Drain To Source Voltage (V)













Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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