## SURFACE MOUNT SILICON HIGH SPEED SWITCHING DIODE



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# **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD914 is a ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded surface mount package, designed for high speed switching applications.

**MARKING CODE: C5D** 



#### **SOT-23 CASE**

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Continuous Reverse Voltage	$v_R$	75	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Continuous Forward Current	I <sub>F</sub>	250	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	250	mA
Peak Forward Surge Current, tp=1.0µs	I <sub>FSM</sub>	4.0	Α
Peak Forward Surge Current, tp=1.0ms	I <sub>FSM</sub>	2.0	Α
Peak Forward Surge Current, tp=1.0s	I <sub>FSM</sub>	1.0	Α
Power Dissipation	$P_{D}$	350	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{JA}$	357	°C/W

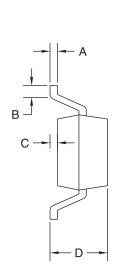
## **ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

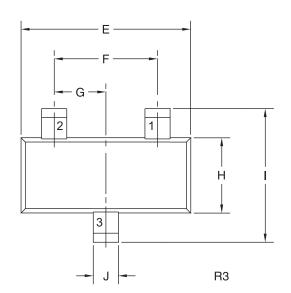
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{R}$	V <sub>R</sub> =20V		25	nA
$I_{R}$	V <sub>R</sub> =75V		5.0	μΑ
$BV_R$	I <sub>R</sub> =100μA	100		V
$V_{F}$	I <sub>E</sub> =10mA		1.0	V
CJ	V <sub>R</sub> =0, f=1.0MHz		4.0	pF
t <sub>rr</sub>	$I_R = I_F = 10 \text{mA}, I_{rr} = 1.0 \text{mA}, R_I = 100 \Omega$		4.0	ns

## SURFACE MOUNT SILICON HIGH SPEED SWITCHING DIODE

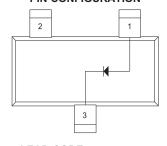


# **SOT-23 CASE - MECHANICAL OUTLINE**





## PIN CONFIGURATION



# LEAD CODE:

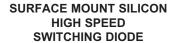
- 1) Anode
- 2) No Connection
- 3) Cathode

MARKING CODE: C5D

DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.003	0.007	0.08	0.18			
В	0.006	-	0.15	-			
С	-	0.005	-	0.13			
D	0.035	0.043	0.89	1.09			
E	0.110	0.120	2.80	3.05			
F	0.075		1.90				
G	0.037		0.95				
Н	0.047	0.055	1.19	1.40			
	0.083	0.098	2.10	2.49			
J	0.014	0.020	0.35	0.50			

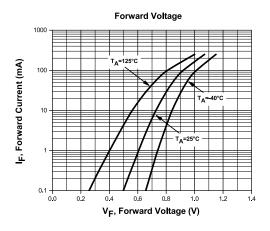
SOT-23 (REV: R3)

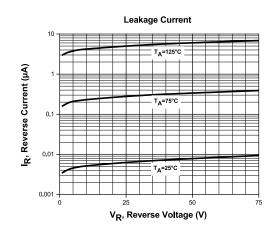
R7 (12-January 2016)

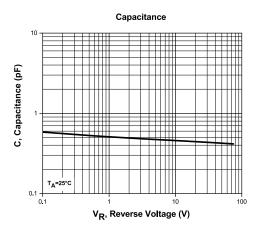


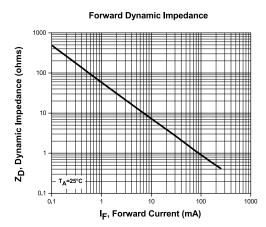


## TYPICAL ELECTRICAL CHARACTERISTICS





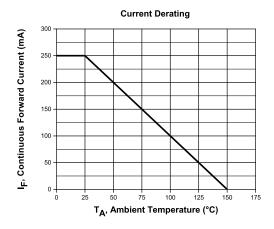


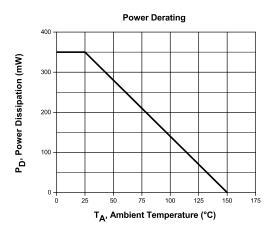






## TYPICAL ELECTRICAL CHARACTERISTICS





#### **OUTSTANDING SUPPORT AND SUPERIOR SERVICES**



#### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- · Inventory bonding
- · Consolidated shipping options

- · Custom bar coding for shipments
- · Custom product packing

#### **DESIGNER SUPPORT/SERVICES**

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free guick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- · Custom electrical curves
- · Environmental regulation compliance
- · Customer specific screening
- · Up-screening capabilities

- Special wafer diffusions
- PbSn plating options
- · Package details
- Application notes
- · Application and design sample kits
- · Custom product and package development

#### REQUESTING PRODUCT PLATING

- 1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
- 2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

#### **CONTACT US**

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