



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



CMPD914E

**ENHANCED SPECIFICATION
SURFACE MOUNT
HIGH SPEED
SILICON SWITCHING DIODE**



www.centrasemi.com



SOT-23 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPD914E is an Enhanced version of the CMPD914 High Speed Switching Diode in a SOT-23 surface mount package, designed for high speed applications.

MARKING CODE: C5DE

FEATURED ENHANCED SPECIFICATIONS:

- ◆ BV_R from 100V min to 120V min. (150V TYP)
- ◆ V_F from 1.0V max to 0.85V max. (0.72V TYP)

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Continuous Reverse Voltage

◆ **Peak Repetitive Reverse Voltage**

Continuous Forward Current

Peak Repetitive Forward Current

Peak Forward Surge Current, $t_p=1.0\mu\text{s}$

Peak Forward Surge Current, $t_p=1.0\text{ms}$

Peak Forward Surge Current, $t_p=1.0\text{s}$

Power Dissipation

Operating and Storage Junction Temperature

Thermal Resistance

SYMBOL

V_R

75

UNITS

V

V_{RRM}

120

V

I_F

250

mA

I_{FRM}

250

mA

I_{FSM}

4000

mA

I_{FSM}

2000

mA

I_{FSM}

1000

mA

P_D

350

mW

T_J, T_{stg}

-65 to +150

$^\circ\text{C}$

θ_{JA}

357

$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL TEST CONDITIONS

MIN

TYP

MAX

UNITS

I_R

$V_R=20\text{V}$

25

nA

I_R

$V_R=75\text{V}$

5.0

μA

◆ **BV_R**

$I_R=100\mu\text{A}$

120

150

V

◆ **V_F**

$I_F=10\text{mA}$

0.720

0.850

V

◆◆ **V_F**

$I_F=100\text{mA}$

0.915

0.970

V

C_T

$V_R=0, f=1.0\text{MHz}$

2.0

pF

t_{rr}

$I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{ mA}$

4.0

ns

◆ Enhanced specification.

◆◆ Additional Enhanced specification.

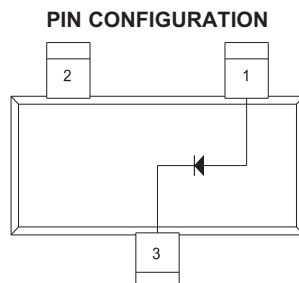
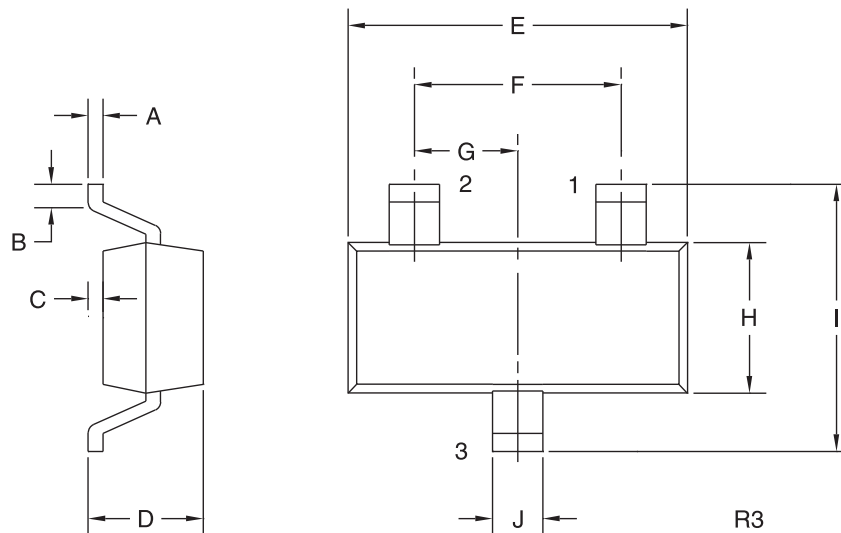
R3 (25-January 2010)

CMPD914E
ENHANCED SPECIFICATION

**SURFACE MOUNT
HIGH SPEED
SILICON SWITCHING DIODE**



SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE: C5DE

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	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	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R3 (25-January 2010)

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 quick ship samples (2nd 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

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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