

CMPD914E

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



www.centrasemi.com

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)



SOT-23 CASE

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.

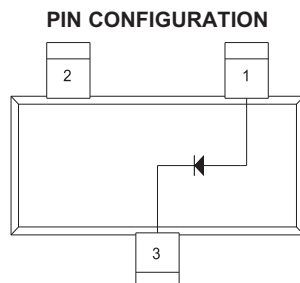
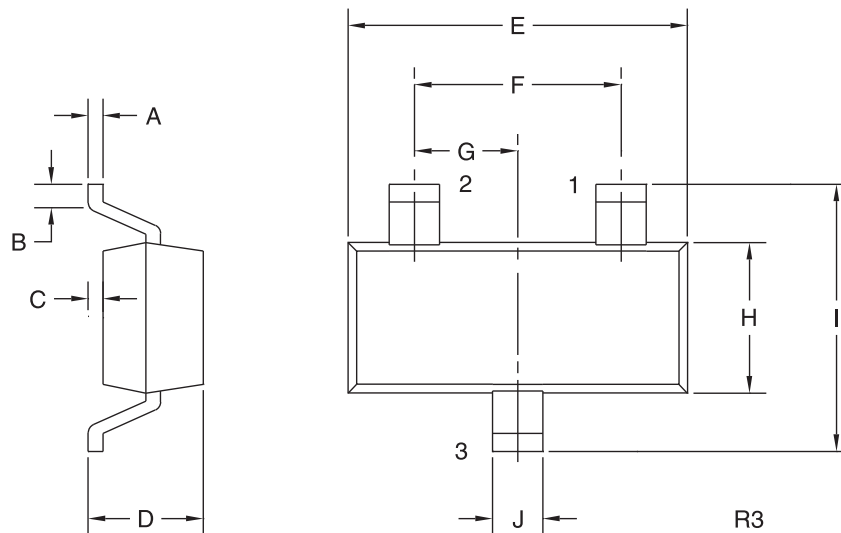
R3 (25-January 2010)

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

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms