

CMPD914E

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



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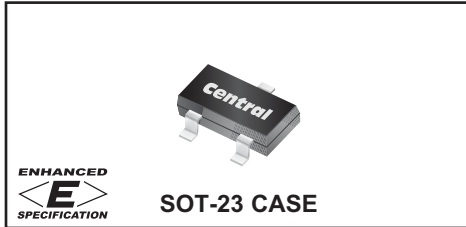
**DESCRIPTION:**

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
◆ <b>Peak Repetitive Reverse Voltage</b>
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		UNITS
$V_R$	75	V
$V_{RRM}$	<b>120</b>	<b>V</b>
$I_F$	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	$^\circ\text{C}$
$\Theta_{JA}$	357	$^\circ\text{C/W}$

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

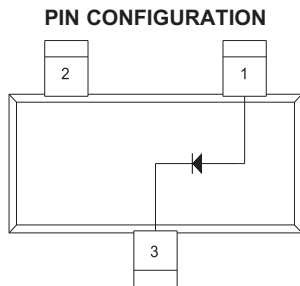
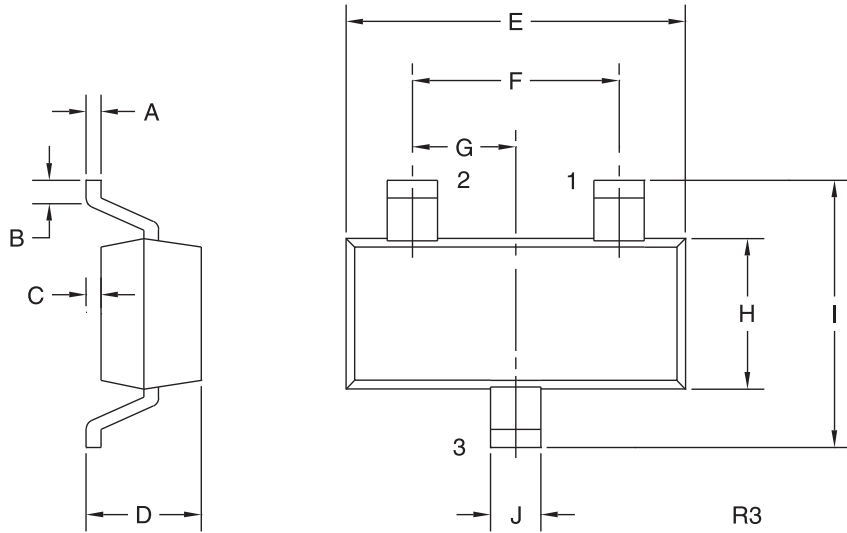
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=20\text{V}$			25	nA
$I_R$	$V_R=75\text{V}$			5.0	$\mu\text{A}$
◆ $BV_R$	$I_R=100\mu\text{A}$	<b>120</b>	<b>150</b>		<b>V</b>
◆ $V_F$	$I_F=10\text{mA}$		<b>0.720</b>	<b>0.850</b>	<b>V</b>
◆◆ $V_F$	$I_F=100\text{mA}$		<b>0.915</b>	<b>0.970</b>	<b>V</b>
$C_T$	$V_R=0, f=1.0\text{MHz}$			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.

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**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**  
 1) Anode  
 2) No Connection  
 3) Cathode

**MARKING CODE: C5DE**

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



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick 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

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### 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.centalsemi.com](http://www.centalsemi.com)

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