

CMPD914E

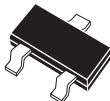
ENHANCED SPECIFICATION

**SURFACE MOUNT
HIGH SPEED
SILICON SWITCHING DIODE**

ENHANCED

E

SPECIFICATION



SOT-23 CASE

CentralTM Semiconductor Corp.

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

	SYMBOL		UNITS
Continuous Reverse Voltage	V_R	75	V
◆ Peak Repetitive Reverse Voltage	V_{RRM}	120	V
Continuous Forward Current	I_F	250	mA
Peak Repetitive Forward Current	I_{FRM}	250	mA
Forward Surge Current, $t_p=1.0\ \mu\text{s}$	I_{FSM}	4000	mA
Forward Surge Current, $t_p=1.0\ \text{ms}$	I_{FSM}	2000	mA
Forward Surge Current, $t_p=1.0\ \text{s}$	I_{FSM}	1000	mA
Power Dissipation	P_D	350	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	357	$^{\circ}\text{C/W}$

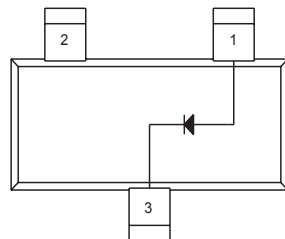
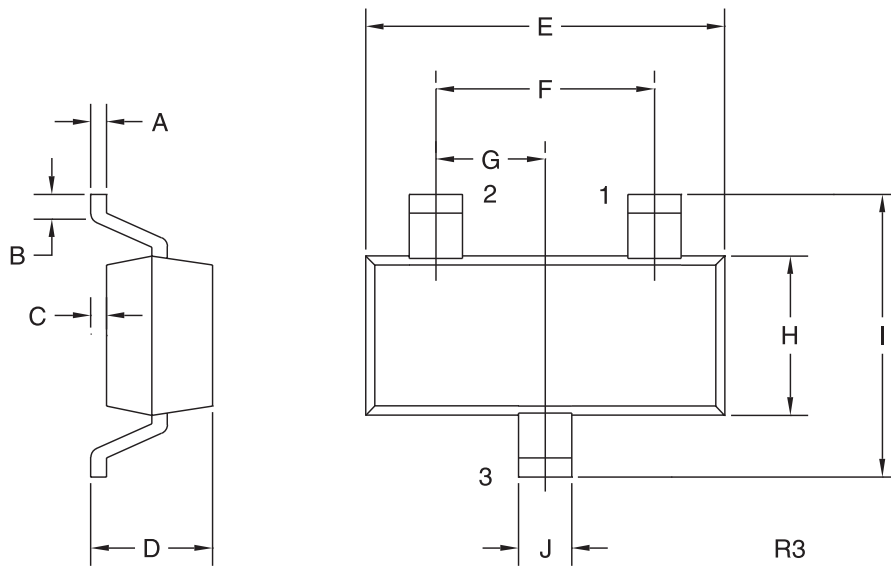
ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
◆ BV_R	$I_R=100\mu\text{A}$	120	150		V
I_R	$V_R=20\text{V}$			25	nA
I_R	$V_R=75\text{V}$			5.0	μA
◆ 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	$V_R=0\text{V}, f=1.0\ \text{MHz}$			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.

R2 (6-August 2003)

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)