

CMP SH-3E
 CMP SH-3AE
 CMP SH-3CE
 CMP SH-3SE

**ENHANCED SPECIFICATION
 SURFACE MOUNT
 SILICON SCHOTTKY DIODES**



www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMP SH-3E Series types are Enhanced Versions of the CMP SH-3 Series of Silicon Schottky Diodes in an SOT-23 Surface Mount Package.



FEATURED ENHANCED SPECIFICATIONS:

- ◆ I_F from 100mA max to 200mA max.
- ◆ BV_R from 30V min to 40V min.
- ◆ V_F from 1.0V max to 0.8V max.

CMP SH-3E: SINGLE
 CMP SH-3AE: DUAL, COMMON ANODE
 CMP SH-3CE: DUAL, COMMON CATHODE
 CMP SH-3SE: DUAL, IN SERIES

MARKING CODE: D95E
MARKING CODE: DB1E
MARKING CODE: DB2E
MARKING CODE: DA5E

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

- ◆ Peak Repetitive Reverse Voltage
- ◆ Continuous Forward Current
- Peak Repetitive Forward Voltage
- Forward Surge Current, $t_p=10\text{ms}$
- Power Dissipation
- Operating and Storage Junction Temperature
- Thermal Resistance

SYMBOL		UNITS
V_{RRM}	40	V
I_F	200	mA
I_{FRM}	350	mA
I_{FSM}	750	mA
P_D	350	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	357	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=25\text{V}$		90	500	nA
I_R	$V_R=25\text{V}, T_A=100^\circ\text{C}$		25	100	μA
◆ BV_R	$I_R=100\mu\text{A}$	40	50		V
V_F	$I_F=2.0\text{mA}$		0.29	0.33	V
◆ V_F	$I_F=15\text{mA}$		0.37	0.42	V
◆ V_F	$I_F=100\text{mA}$		0.61	0.80	V
◆ V_F	$I_F=200\text{mA}$		0.65	1.0	V
C_T	$V_R=1.0\text{V}, f=1.0\text{MHz}$		7.0		pF
t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$			5.0	ns

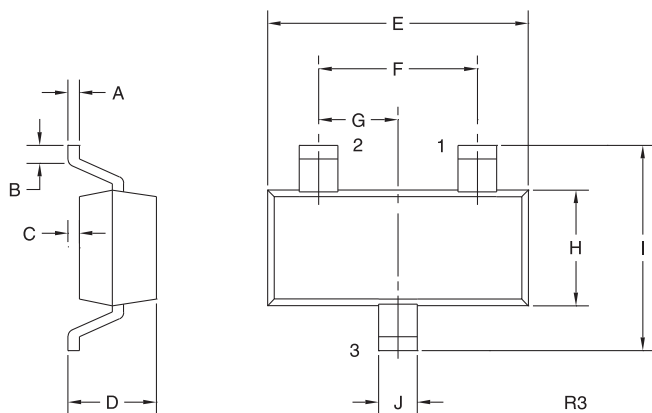
- ◆ Enhanced specification
- ◆◆ Additional Enhanced specification

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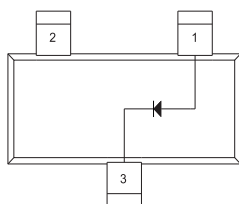
SOT-23 CASE - MECHANICAL OUTLINE



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

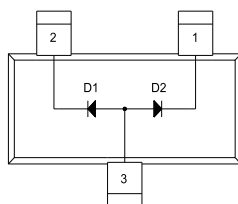
SOT-23 (REV: R3)

PIN CONFIGURATIONS



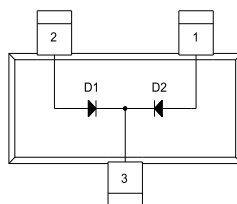
CMP SH-3E
LEAD CODE:
 1) Anode
 2) No Connection
 3) Cathode

MARKING CODE: D95E



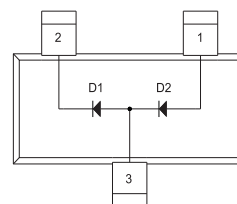
CMP SH-3AE
LEAD CODE:
 1) Cathode D2
 2) Cathode D1
 3) Anode D1, D2

MARKING CODE: DB1E



CMP SH-3CE
LEAD CODE:
 1) Anode D2
 2) Anode D1
 3) Cathode D1, D2

MARKING CODE: DB2E



CMP SH-3SE
LEAD CODE:
 1) Anode D2
 2) Cathode D1
 3) Anode D1, Cathode D2

MARKING CODE: DA5E

R3 (27-January 2010)