

CMSSH-3E CMSSH-3CE
 CMSSH-3AE CMSSH-3SE

**ENHANCED SPECIFICATION
 SURFACE MOUNT
 SILICON SCHOTTKY DIODES**

SUPERmini™



SOT-323 CASE

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



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSSH-3E Series types are Enhanced Versions of the CMSSH-3 Series of Silicon Schottky Diodes in an SOT-323 Surface Mount Package.

FEATURED ENHANCED SPECIFICATIONS:

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

MARKING CODE: 31E
MARKING CODE: 3AE
MARKING CODE: 3CE
MARKING CODE: 3SE

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

- ◆ **Peak Repetitive Reverse Voltage**
- ◆ **Continuous Forward Current**
 Peak Repetitive Forward Current
 Peak 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	250	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Θ_{JA}	500	$^\circ\text{C/W}$

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

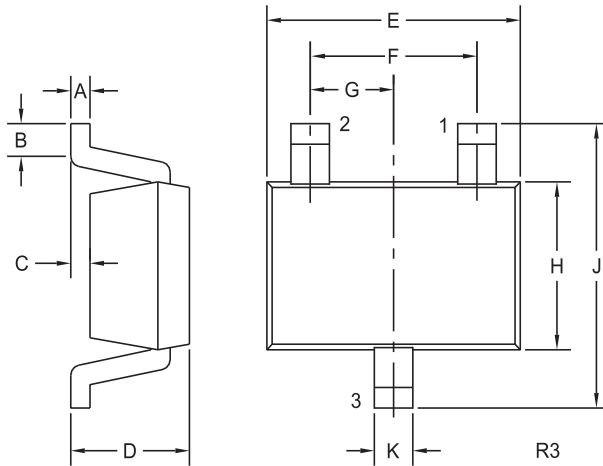
◆◆ Additional Enhanced specification

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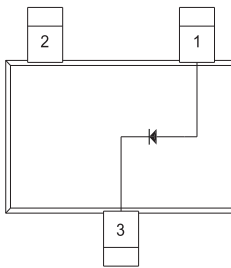
SOT-323 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.008	0.05	0.20
B	0.004	-	0.10	-
C	-	0.004	-	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.045	0.053	1.15	1.35
J	0.079	0.087	2.00	2.20
K	0.008	0.016	0.20	0.40

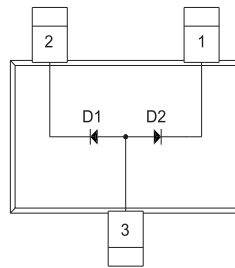
SOT-323 (REV: R3)

PIN CONFIGURATIONS



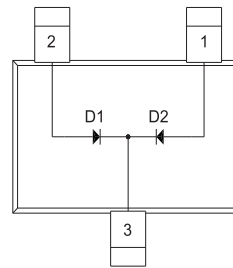
CMSSH-3E
LEAD CODE:
 1) Anode
 2) NC
 3) Cathode

MARKING CODE: 31E



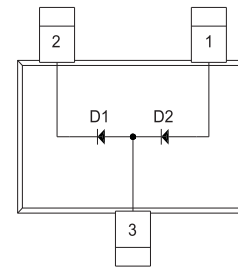
CMSSH-3AE
LEAD CODE:
 1) Cathode D2
 2) Cathode D1
 3) Anode D1, D2

MARKING CODE: 3AE



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

MARKING CODE: 3CE



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

MARKING CODE: 3SE

R2 (9-February 2010)