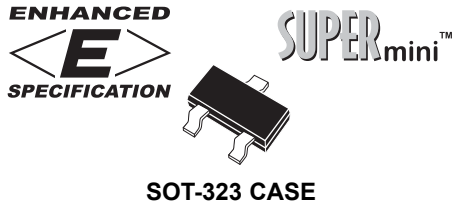


CMSSH-3E
CMSSH-3AE
CMSSH-3CE
CMSSH-3SE

**ENHANCED SPECIFICATION
SURFACE MOUNT, SUPERmini™
SILICON SCHOTTKY DIODES**



Central™

Semiconductor Corp.

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

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

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
 - 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)

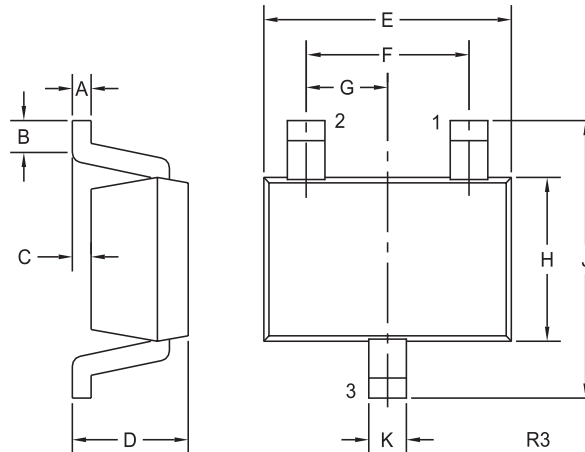
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
◆ BV_R	$I_R=100\mu\text{A}$	40	50		V
V_F	$I_F=2.0\text{mA}$		0.29	0.33	V
◆ V_F	$I_F=15\text{mA}$		0.37	0.42	V
◆ V_F	$I_F=100\text{mA}$		0.61	0.80	V
◆ ◆ V_F	$I_F=200\text{mA}$		0.65	1.0	V
I_R	$V_R=25\text{V}$		90	500	nA
I_R	$V_R=25\text{V}, T_A=100^\circ\text{C}$		25	100	μA
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.

R1 (4-February 2004)

ENHANCED SPECIFICATION
SURFACE MOUNT, SUPERminiTM
SILICON SCHOTTKY DIODES

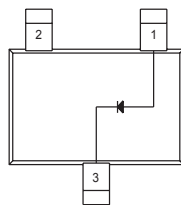
SOT-323 CASE - MECHANICAL OUTLINE



SYMBOL	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)

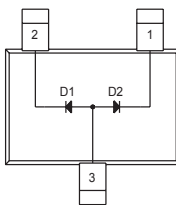
PIN CONFIGURATION



CMSSH-3E

- 1) Anode
- 2) No Connection
- 3) Cathode

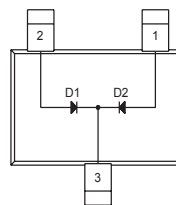
MARKING CODE:
31E



CMSSH-3AE

- 1) Cathode D2
- 2) Cathode D1
- 3) Anode D1, D2

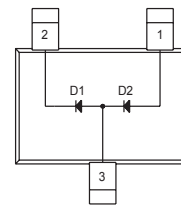
MARKING CODE:
3AE



CMSSH-3CE

- 1) Anode D2
- 2) Anode D1
- 3) Cathode D1, D2

MARKING CODE:
3CE



CMSSH-3SE

- 1) Anode D2
- 2) Cathode D1
- 3) Anode D1, Cathode D2

MARKING CODE:
3SE

R1 (4-February 2004)