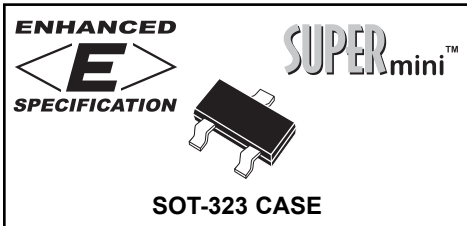


CMSSH-3E
 CMSSH-3AE
 CMSSH-3CE
 CMSSH-3SE

**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 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.

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 | $^\circ\text{C/W}$ |

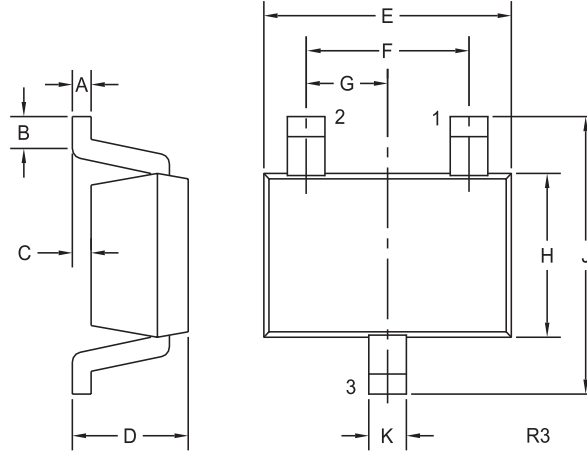
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| 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.

**ENHANCED SPECIFICATION
SURFACE MOUNT, SUPERminiTM
SILICON SCHOTTKY DIODES**

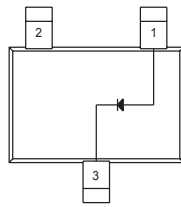
SOT-323 CASE - MECHANICAL OUTLINE



| 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)

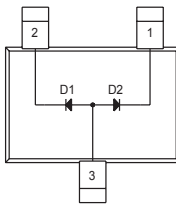
PIN CONFIGURATION



CMSSH-3E

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

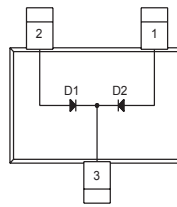
**MARKING CODE:
31E**



CMSSH-3AE

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

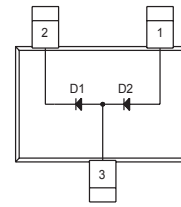
**MARKING CODE:
3AE**



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)