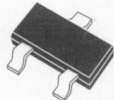


CMPSH-3E  
 CMPSH-3AE  
 CMPSH-3CE  
 CMPSH-3SE

**ENHANCED SPECIFICATION  
 SURFACE MOUNT  
 SILICON SCHOTTKY DIODES**

**ENHANCED  
 SPECIFICATION**



**SOT-23 CASE**

**Central**<sup>TM</sup>  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPSH-3E Series types are Enhanced Versions of the CMPSH-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.

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

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

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

|  | SYMBOL         |             | UNITS              |
|--|----------------|-------------|--------------------|
| ◆ Peak Repetitive Reverse Voltage        | $V_{RRM}$      | 40          | V                  |
| ◆ Continuous Forward Current             | $I_F$          | 200         | mA                 |
| Peak Repetitive Forward Voltage          | $I_{FRM}$      | 350         | mA                 |
| Forward Surge Current, $t_p=10\text{ms}$ | $I_{FSM}$      | 750         | mA                 |
| Power Dissipation                        | $P_D$          | 350         | mW                 |
| Operating and Storage                    |                |             |                    |
| Junction Temperature                     | $T_J, T_{stg}$ | -65 to +150 | $^\circ\text{C}$   |
| Thermal Resistance                       | $\Theta_{JA}$  | 357         | $^\circ\text{C/W}$ |

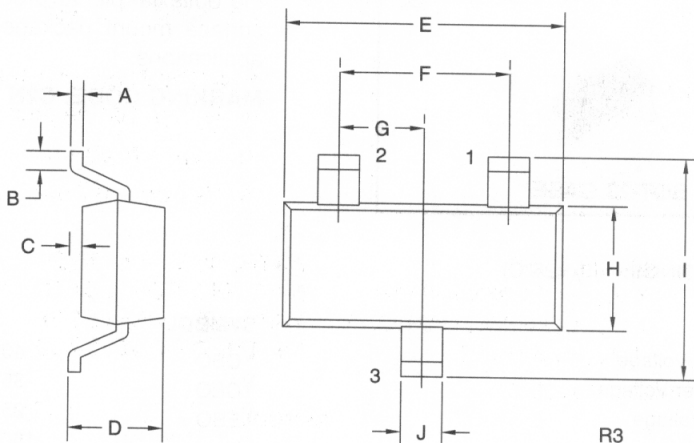
**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

| SYMBOL   | TEST CONDITIONS   | MIN | TYP  | MAX  | UNITS         |
|----------|---|-----|------|------|---------------|
| ◆ $BV_R$ | $I_R=100\mu\text{A}$                                      | 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  | $\mu\text{A}$ |
| $C_T$    | $V_R=1.0\text{V}, f=1\text{MHz}$                          |     | 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  
 SILICON SCHOTTKY DIODES**

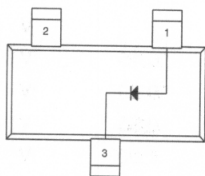
**SOT-23 CASE - MECHANICAL OUTLINE**



| 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)

**DATA  
 SHEETS**

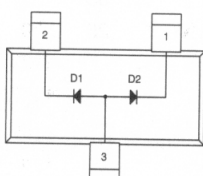


**LEAD CODE:**

**CMP SH-3E**

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

**MARKING  
 CODE: D95E**

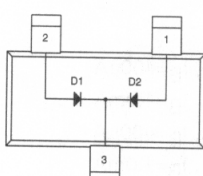


**LEAD CODE:**

**CMP SH-3AE**

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

**MARKING  
 CODE: DB1E**

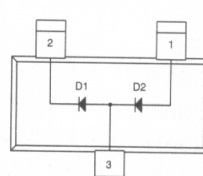


**LEAD CODE:**

**CMP SH-3CE**

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

**MARKING  
 CODE: DB2E**



**LEAD CODE:**

**CMP SH-3SE**

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

**MARKING  
 CODE: DA5E**