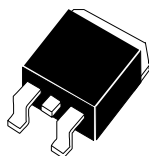




CSHDD16-40C  
CSHDD16-60C  
CSHDD16-100C

SILICON SCHOTTKY RECTIFIERS  
DUAL, COMMON CATHODE  
16 AMP, 40 THRU 100 VOLTS



D<sup>2</sup>PAK CASE

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

#### FEATURES:

- HIGH RELIABILITY
- LOW FORWARD VOLTAGE
- HIGH CURRENT CAPABILITY
- HIGH SURGE CAPACITY
- UL FLAMMABILITY CLASSIFICATION 94V-O
- SUPERIOR LOT TO LOT CONSISTENCY
- LOW POWER LOSS, HIGH EFFECIENCY
- HIGH VOLTAGE

#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CSHDD16-40C Series types are Silicon Schottky Rectifiers designed for surface mount fast switching applications requiring a low forward voltage drop. To order devices on 24mm Tape and Reel ( 800/13" Reel ), add TR13 suffix to part number.

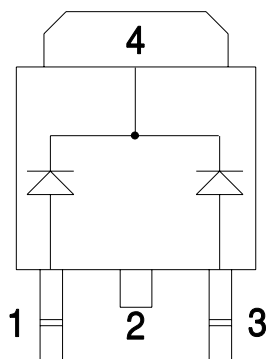
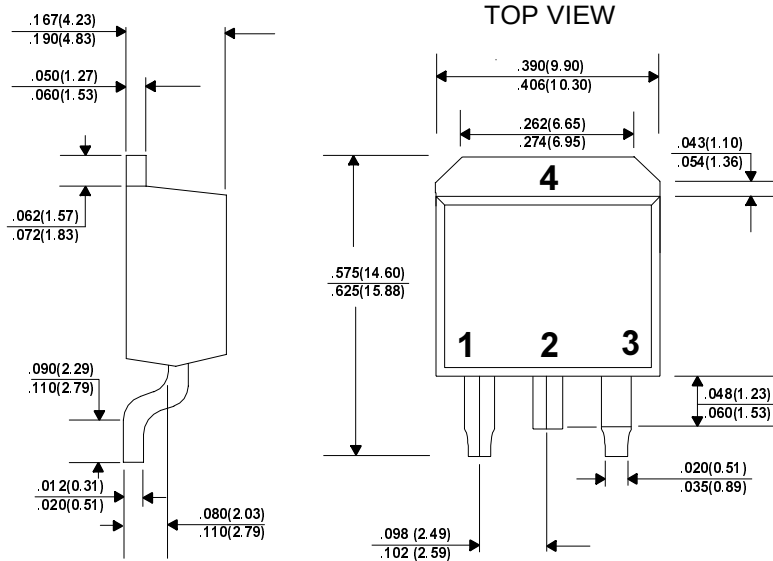
**MAXIMUM RATINGS:** ( $T_C=25^{\circ}\text{C}$  unless otherwise noted)

|                                                      | SYMBOL         | CSHDD16<br>-40C | CSHDD16<br>-60C | CSHDD16<br>-100C | UNITS                |
|------------------------------------------------------|----------------|-----------------|-----------------|------------------|----------------------|
| Peak Repetitive Reverse Voltage                      | $V_{RRM}$      | 40              | 60              | 100              | V                    |
| DC Blocking Voltage                                  | $V_R$          | 40              | 60              | 100              | V                    |
| RMS Reverse Voltage                                  | $V_{R(RMS)}$   | 26              | 42              | 80               | V                    |
| Average Forward Current ( $T_C=90^{\circ}\text{C}$ ) | $I_O$          |                 | 16              |                  | A                    |
| Peak Forward Surge Current (8.3ms)                   | $I_{FSM}$      |                 | 150             |                  | A                    |
| Critical Rate of Rise of Reverse Voltage             | $dV/dt$        |                 | 10,000          |                  | V/ $\mu\text{s}$     |
| Operating and Storage                                |                |                 |                 |                  |                      |
| Junction Temperature                                 | $T_J, T_{stg}$ |                 | -65 to +150     |                  | $^{\circ}\text{C}$   |
| Typical Thermal Resistance                           | $\Theta_{JC}$  |                 | 2.0             |                  | $^{\circ}\text{C/W}$ |
| Typical Thermal Resistance                           | $\Theta_{JA}$  |                 | 50              |                  | $^{\circ}\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS                                      | CSHDD16<br>-40C |      | CSHDD16<br>-60C |      | CSHDD16<br>-100 |      | UNITS         |
|--------|------------------------------------------------------|-----------------|------|-----------------|------|-----------------|------|---------------|
|        |                                                      | TYP             | MAX  | TYP             | MAX  | TYP             | MAX  |               |
| $I_R$  | $V_R=\text{Rated } V_{RRM}$                          |                 | 100  |                 | 100  |                 | 100  | $\mu\text{A}$ |
| $I_R$  | $V_R=\text{Rated } V_{RRM}, T_C=125^{\circ}\text{C}$ |                 | 15   |                 | 15   |                 | 15   | mA            |
| $V_F$  | $I_F=8.0\text{A}$                                    |                 | 0.65 |                 | 0.75 |                 | 0.85 | V             |
| $V_F$  | $I_F=8.0\text{A}, T_C=125^{\circ}\text{C}$           |                 | 0.57 |                 | 0.65 |                 | 0.75 | V             |
| $V_F$  | $I_F=16\text{A}$                                     |                 | 0.84 |                 | 0.95 |                 | 1.10 | V             |
| $V_F$  | $I_F=16\text{A}, T_C=125^{\circ}\text{C}$            |                 | 0.72 |                 | 0.85 |                 | 1.00 | V             |
| $C_J$  | $V_R=4.0\text{V}, f=1.0\text{MHz}$                   | 300             |      | 300             |      | 300             |      | pF            |

All Dimensions in Inches (mm).



LEAD CODE:

- 1) ANODE#1
- 2) CATHODE
- 3) ANODE #2
- 4) CATHODE

PIN 2 IS COMMON TO THE TAB(4)