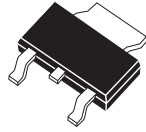


**CZSH10-40CN**

**SURFACE MOUNT  
DUAL, COMMON CATHODE  
SILICON  
SCHOTTKY POWER RECTIFIER  
10 AMP, 40 VOLTS**



**SOT-223C CASE**

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZSH10-40CN is a dual common cathode 10 Amp surface mount silicon Schottky rectifier package in a SOT-223C case. The new SOT-223C case has a cut center lead for optional mounting pad connection of the two anodes for use as a single 10 Amp device. This device has been designed for use in all types of commercial, industrial, entertainment, computer and automotive applications, which require a high current device.

**MARKING CODE: FULL PART NUMBER**

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

|                                                      | SYMBOL         |             | UNITS              |
|------------------------------------------------------|----------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage                      | $V_{RRM}$      | 40          | V                  |
| DC Blocking Voltage                                  | $V_R$          | 40          | V                  |
| RMS Reverse Voltage                                  | $V_{R(RMS)}$   | 28          | V                  |
| Average Forward Current ( $T_A=75^{\circ}\text{C}$ ) | $I_O$          | 10          | A                  |
| Peak Forward Surge Current (8.3ms)                   | $I_{FSM}$      | 125         | A                  |
| Operating and Storage                                |                |             |                    |
| Junction Temperature                                 | $T_J, T_{stg}$ | -65 to +150 | $^{\circ}\text{C}$ |

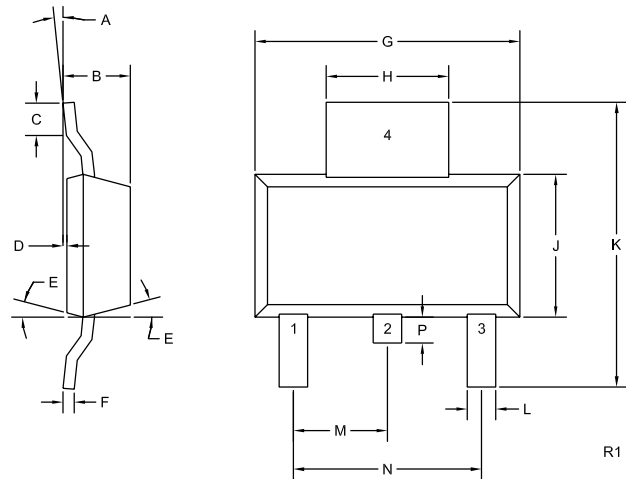
**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

| SYMBOL | TEST CONDITIONS                           | MAX  | UNITS |
|--------|-------------------------------------------|------|-------|
| $I_R$  | $V_R=40\text{V}$                          | 3.0  | mA    |
| $I_R$  | $V_R=40\text{V}, T_A=100^{\circ}\text{C}$ | 20   | mA    |
| $V_F$  | $I_F=5.0\text{A}$                         | 0.55 | V     |
| $*V_F$ | $I_F=10\text{A}$                          | 0.60 | V     |

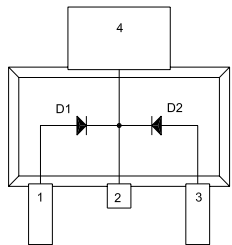
\* With pin 1 and pin 3 connected together.

R1 (22-July 2004)

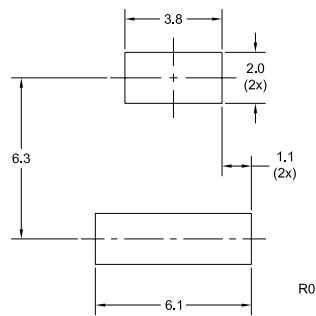
**SOT-223C CASE - MECHANICAL OUTLINE**



- LEAD CODE:**
- 1) ANODE D1
  - 2) CATHODE D1, D2
  - 3) ANODE D2
  - 4) CATHODE D1, D2



Pin 2 and Pin 4 are common.



Optional Mounting Pad Layout for  
single 10 Amp configuration.

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 0°     | 7°    | 0°          | 10°  |
| B          | 0.063  | 0.067 | 1.50        | 1.80 |
| C          | 0.022  |       | 0.45        | ---  |
| D          | 0.001  | 0.004 | 0.00        | 0.10 |
| E          | 15°    |       | 15°         |      |
| F          | 0.009  | 0.013 | 0.23        | 0.35 |
| G          | 0.248  | 0.264 | 6.30        | 6.70 |
| H          | 0.114  | 0.122 | 2.90        | 3.10 |
| J          | 0.130  | 0.146 | 3.30        | 3.70 |
| K          | 0.264  | 0.287 | 6.70        | 7.30 |
| L          | 0.024  | 0.031 | 0.60        | 0.85 |
| M          | 0.091  |       | 2.30        |      |
| N          | 0.181  |       | 4.60        |      |
| P          | -      | 0.025 | -           | 0.64 |

SOT-223C (REV: R1)

**MARKING CODE:**  
**FULL PART NUMBER**

R1 (22-July 2004)