

**CR5-010 SERIES  
GLASS PASSIVATED JUNCTION  
GENERAL PURPOSE  
SILICON RECTIFIER  
5.0 AMP, 100 THRU 1200 VOLTS**



**DO-201AD CASE**

# Central<sup>TM</sup>

**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CR5-010 Series types are 5.0 Amp, Glass Passivated Junction, Silicon Rectifiers which are high quality, well constructed, highly reliable components designed for use in all types of military, commercial, industrial, entertainment, computer, and automotive applications.

**THIS DEVICE IS MANUFACTURED WITH A GLASS PASSIVATED CHIP FOR OPTIMUM RELIABILITY.**

**MARKING CODES: SEE MARKING CODES ON FOLLOWING PAGE**

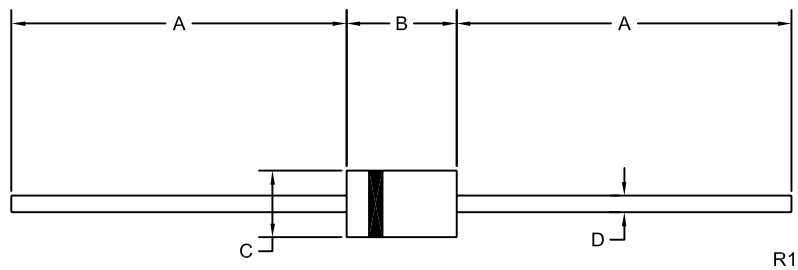
**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

|                                                    | SYMBOL         | CR5<br><u>-010</u> | CR5<br><u>-020</u> | CR5<br><u>-040</u> | CR5<br><u>-060</u> | CR5<br><u>-080</u> | CR5<br><u>-100</u> | CR5<br><u>-120</u> | UNITS            |
|----------------------------------------------------|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|
| Peak Repetitive Reverse Voltage                    | $V_{RRM}$      | 100                | 200                | 400                | 600                | 800                | 1000               | 1200               | V                |
| DC Blocking Voltage                                | $V_R$          | 100                | 200                | 400                | 600                | 800                | 1000               | 1200               | V                |
| RMS Reverse Voltage                                | $V_{R(RMS)}$   | 70                 | 140                | 280                | 420                | 560                | 700                | 840                | V                |
| Average Forward Current ( $T_A=75^\circ\text{C}$ ) | $I_O$          |                    |                    |                    | 5.0                |                    |                    |                    | A                |
| Peak Forward Surge Current                         | $I_{FSM}$      |                    |                    |                    | 200                |                    |                    |                    | A                |
| Operating and Storage<br>Junction Temperature      | $T_J, T_{stg}$ |                    |                    |                    | -65 to +150        |                    |                    |                    | $^\circ\text{C}$ |

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

| SYMBOL | TEST CONDITIONS                                           | MIN | TYP | MAX | UNITS         |
|--------|-----------------------------------------------------------|-----|-----|-----|---------------|
| $I_R$  | $V_R=\text{Rated } V_{RRM}$                               |     |     | 5.0 | $\mu\text{A}$ |
| $I_R$  | $V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$        |     |     | 100 | $\mu\text{A}$ |
| $V_F$  | $I_F=5.0\text{A}$                                         |     |     | 1.2 | V             |
| $C_J$  | $V_R=4.0\text{V}, f=1.0\text{MHz}$ (CR5-010 THRU CR5-040) |     | 50  |     | pF            |
| $C_J$  | $V_R=4.0\text{V}, f=1.0\text{MHz}$ (CR5-060 THRU CR5-120) |     | 25  |     | pF            |

**JEDEC DO-201AD - MECHANICAL OUTLINE**



| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 1.000  | -     | 25.40       | -    |
| B          | 0.283  | 0.375 | 7.20        | 9.53 |
| C          | 0.189  | 0.210 | 4.80        | 5.33 |
| D          | 0.047  | 0.052 | 1.20        | 1.32 |

DO-201AD (REV: R1)

| Device  | Marking Code       |
|---------|--------------------|
| CR5-010 | CENTRAL<br>CR5-010 |
| CR5-020 | CENTRAL<br>CR5-020 |
| CR5-040 | CENTRAL<br>CR5-040 |
| CR5-060 | CENTRAL<br>CR5-060 |
| CR5-080 | CENTRAL<br>CR5-080 |
| CR5-100 | CENTRAL<br>CR5-100 |
| CR5-120 | CENTRAL<br>CR5-120 |

R2 (10-March 2006)