**CS202-4B**
**CS202-4D**
**CS202-4M**
**CS202-4N**

**4.0 AMP SCR**
**200 THRU 800 VOLTS**




**TO-202 CASE**

Central Semiconductor Corp.

www.centralsemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CS202-4B series type is an epoxy molded silicon controlled rectifier designed for sensing circuit applications and control systems.

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** ($T_C$=25°C unless otherwise noted)

| | SYMBOL | CS202 -4B | CS202 -4D | CS202 -4M | CS202 -4N | UNITS |
|---|---|---|---|---|---|---|
| Peak Repetitive Off-State Voltage | $V_{DRM}$, $V_{RRM}$ | 200 | 400 | 600 | 800 | V |
| RMS On-State Current ($T_C$=85°C) | $I_{T(RMS)}$ | | 4.0 | | | A |
| Peak One Cycle Surge (t=10ms) | $I_{TSM}$ | | 30 | | | A |
| $I^2t$ Value for Fusing (t=10ms) | $I^2t$ | | 4.5 | | | $A^2s$ |
| Peak Gate Power (tp=20μs) | $P_{GM}$ | | 3.0 | | | W |
| Average Gate Power Dissipation | $P_{G(AV)}$ | | 0.2 | | | W |
| Peak Gate Current (tp=20μs) | $I_{GM}$ | | 1.2 | | | A |
| Critical Rate of Rise of On-State Current | di/dt | | 50 | | | A/μs |
| Storage Temperature | $T_{stg}$ | | -40 to +150 | | | °C |
| Junction Temperature | $T_J$ | | -40 to +125 | | | °C |
| Thermal Resistance | $\Theta_{JA}$ | | 80 | | | °C/W |
| Thermal Resistance | $\Theta_{JC}$ | | 7.5 | | | °C/W |

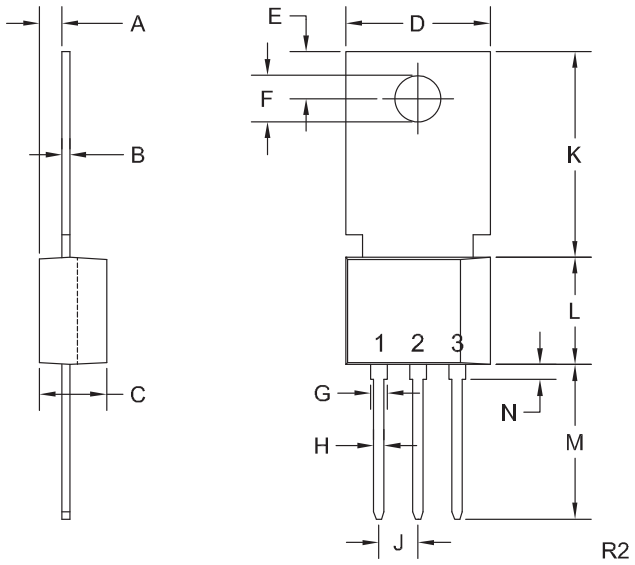
**ELECTRICAL CHARACTERISTICS:** ($T_C$=25°C unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|---|---|---|---|---|---|
| $I_{DRM}$, $I_{RRM}$ | Rated $V_{DRM}$, $V_{RRM}$, $R_{GK}$=1.0KΩ | | | 10 | μA |
| $I_{DRM}$, $I_{RRM}$ | Rated $V_{DRM}$, $V_{RRM}$, $R_{GK}$=1.0KΩ, $T_C$=125°C | | | 200 | μA |
| $I_{GT}$ | $V_D$=12V, $R_L$=10Ω | 20 | 38 | 200 | μA |
| $I_H$ | $I_T$=50mA, $R_{GK}$=1.0KΩ | | 0.25 | 2.0 | mA |
| $V_{GT}$ | $V_D$=12V, $R_L$=10Ω | | 0.55 | 0.8 | V |
| $V_{TM}$ | $I_{TM}$=8.0A, tp=380μs | | 1.6 | 1.8 | V |
| dv/dt | $V_D$=⅔ $V_{DRM}$, $R_{GK}$=1.0KΩ, $T_C$=125°C | | 10 | | V/μs |

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## TO-202 CASE - MECHANICAL OUTLINE




**LEAD CODE:**
1) Cathode
2) Anode
3) Gate
Tab is common to pin 2

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

| DIMENSIONS | | | | |
|---|---|---|---|---|
| | INCHES | | MILLIMETERS | |
| SYMBOL | MIN | MAX | MIN | MAX |
| A | 0.055 | 0.071 | 1.40 | 1.80 |
| B | 0.016 | 0.024 | 0.40 | 0.60 |
| C | 0.173 | 0.181 | 4.40 | 4.60 |
| D | 0.374 | 0.413 | 9.50 | 10.5 |
| E | 0.118 | 0.154 | 3.00 | 3.90 |
| F (DIA) | 0.124 | 0.150 | 3.15 | 3.80 |
| G | 0.035 | 0.055 | 0.90 | 1.40 |
| H | 0.023 | 0.031 | 0.59 | 0.80 |
| J | 0.094 | 0.106 | 2.39 | 2.69 |
| K | 0.459 | 0.559 | 11.66 | 14.21 |
| L | 0.280 | 0.346 | 7.12 | 8.80 |
| M | 0.406 | 0.531 | 10.3 | 13.5 |
| N | 0.024 | 0.059 | 0.60 | 1.50 |

TO-202 (REV: R2)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES

### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

### CONTACT US

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http://www.centralsemi.com

# Product End of Life Notification

| | |
|---|---|
| **PDN ID:** | PDN01052 |
| **Notification Date:** | 8/24/16 |
| **Last Buy Date:** | 2/24/17 |
| **Last Shipment Date** | 8/24/17 |

Summary:The CS202 series of Silicon Controlled Rectifiers in the TO-202 case is discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

| Central Part Number | Replacement |
|---|---|
| CS202-4B | N/A |
| CS202-4B-2 | N/A |
| CS202-4D | N/A |
| CS202-4D-2 | N/A |
| CS202-4M | N/A |
| CS202-4M-2 | N/A |
| CS202-4N | N/A |
| CS202-4N-2 | N/A |

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.