

CS202-4B-2
 CS202-4D-2
 CS202-4M-2
 CS202-4N-2

4.0 AMP SCR
 200 THRU 800 VOLTS



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CS202-4B-2 series type is an epoxy molded silicon controlled rectifier designed for sensing circuit applications and control systems.

MARKING: FULL PART NUMBER



TO-202-2 CASE

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

| | SYMBOL | CS202 -4B-2 | CS202 -4D-2 | CS202 -4M-2 | CS202 -4N-2 | 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 ² t Value for Fusing (t=10ms) | I ² t | | | 4.5 | | A ² s |
| 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 | θ _{JA} | | 80 | | | °C/W |
| Thermal Resistance | θ _{JC} | | 7.5 | | | °C/W |

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

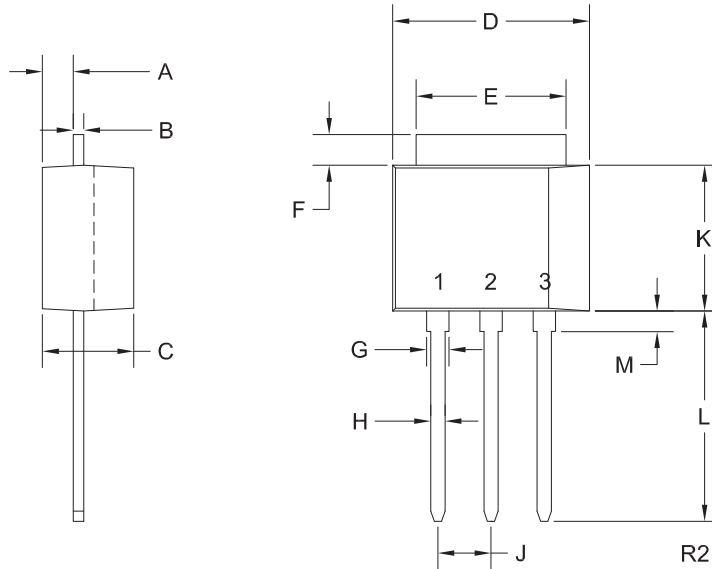
| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-------------------------------------|---|-----|------|-----|-------|
| I _{DRM} , I _{RRM} | Rated V _{DRM} , V _{RRM} , R _{GK} =1.0KΩ | | | 10 | µA |
| I _{DRM} , I _{RRM} | Rated V _{DRM} , V _{RRM} , R _{GK} =1.0KΩ, T _C =125°C | | | 200 | 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 =2/3 V _{DRM} , R _{GK} =1.0KΩ, T _C =125°C | | 10 | | V/µs |

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TO-202-2 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
 - 2) Anode
 - 3) Gate
- Tab is common to pin 2

MARKING:

FULL PART NUMBER

| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | 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 | 0.236 | 0.355 | 6.00 | 9.00 |
| F | - | 0.071 | - | 1.80 |
| 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 | 0.280 | 0.346 | 7.12 | 8.80 |
| L | 0.406 | 0.531 | 10.3 | 13.5 |
| M | 0.024 | 0.059 | 0.60 | 1.50 |

TO-202-2 (REV: R2)

R2 (23-April 2012)