

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

4.0 AMP SCR  
 200 THRU 800 VOLTS



TO-202-2 CASE



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**

**MAXIMUM RATINGS:** ( $T_C=25^\circ\text{C}$  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 ( $T_C=85^\circ\text{C}$ )	$I_T(\text{RMS})$			4.0		A
Peak One Cycle Surge ( $t=10\text{ms}$ )	$I_{TSM}$			30		A
$I^2t$ Value for Fusing ( $t=10\text{ms}$ )	$I^2t$			4.5		$\text{A}^2\text{s}$
Peak Gate Power ( $t_p=20\mu\text{s}$ )	$P_{GM}$			3.0		W
Average Gate Power Dissipation	$P_{G(AV)}$			0.2		W
Peak Gate Current ( $t_p=20\mu\text{s}$ )	$I_{GM}$			1.2		A
Critical Rate of Rise of On-State Current	$di/dt$			50		$\text{A}/\mu\text{s}$
Storage Temperature	$T_{stg}$		-40 to +150			$^\circ\text{C}$
Junction Temperature	$T_J$		-40 to +125			$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$		80			$^\circ\text{C}/\text{W}$
Thermal Resistance	$\theta_{JC}$		7.5			$^\circ\text{C}/\text{W}$

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

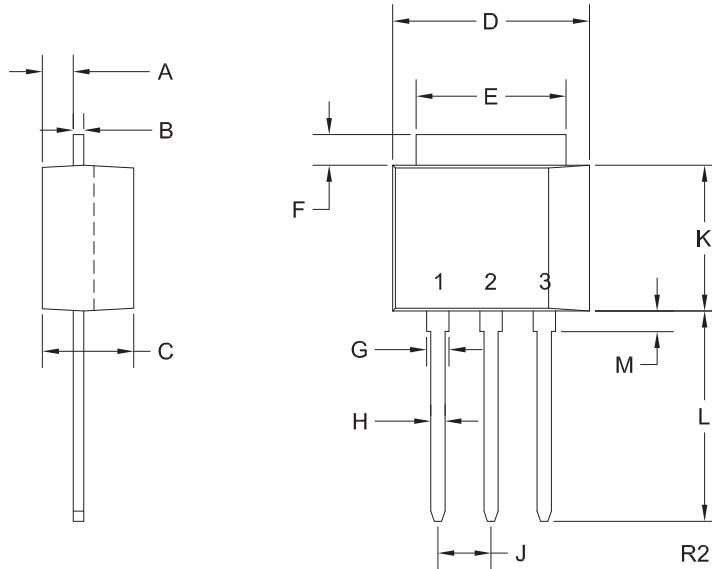
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{DRM}, I_{RRM}$	Rated $V_{DRM}, V_{RRM}, R_{GK}=1.0\text{K}\Omega$			10	$\mu\text{A}$
$I_{DRM}, I_{RRM}$	Rated $V_{DRM}, V_{RRM}, R_{GK}=1.0\text{K}\Omega, T_C=125^\circ\text{C}$			200	$\mu\text{A}$
$I_{GT}$	$V_D=12\text{V}, R_L=10\Omega$	20	38	200	$\mu\text{A}$
$I_H$	$I_T=50\text{mA}, R_{GK}=1.0\text{K}\Omega$		0.25	2.0	mA
$V_{GT}$	$V_D=12\text{V}, R_L=10\Omega$		0.55	0.8	V
$V_{TM}$	$I_{TM}=8.0\text{A}, t_p=380\mu\text{s}$		1.6	1.8	V
$dv/dt$	$V_D=2/3 V_{DRM}, R_{GK}=1.0\text{K}\Omega, T_C=125^\circ\text{C}$		10		$\text{V}/\mu\text{s}$

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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)