

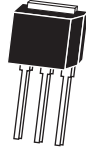
CS202-4B-2  
 CS202-4D-2  
 CS202-4M-2  
 CS202-4N-2  
 4.0 AMP SCR  
 200 THRU 800 VOLTS

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

## 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 CODE: FULL PART NUMBER



TO-202-2 THYRISTOR CASE

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

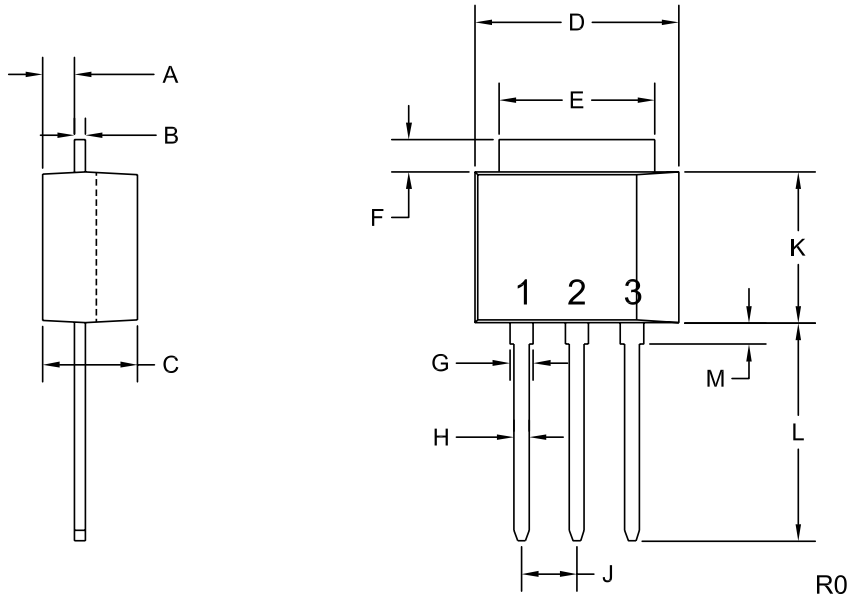
	SYMBOL	CS202 -4B-2	CS202 -4D-2	CS202 -4M-2	CS202 -4N-2	UNITS
Peak Repetitive Off-State Voltage	$V_{DRM}, V_{RRM}$	200	400	600	800	V
RMS On-State Current ( $T_C=85^\circ\text{C}$ )	$I_T(\text{RMS})$		4.0			A
Peak One Cycle Surge ( $t=10\text{ms}$ )	$I_{TSM}$		30			A
$I^2t$ Value for Fusing ( $t=10\text{ms}$ )	$I^2t$		4.5			A <sup>2</sup> s
Peak Gate Power ( $t_p=20\mu\text{s}$ )	$P_{GM}$		3.0			W
Average Gate Power Dissipation	$P_G(\text{AV})$		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			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 $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega$			10	$\mu\text{A}$
$I_{DRM}, I_{RRM}$	Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$			200	$\mu\text{A}$
$I_{GT}$	$V_D=12\text{V}, R_L=10\Omega$	20	38	200	$\mu\text{A}$
$I_H$	$I_T=50\text{mA}, R_{GK}=1\text{K}\Omega$		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
$dv/dt$	$V_D=2/3 V_{DRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$		10		V/ $\mu\text{s}$

R1 (14-September 2004)

TO-202-2 THYRISTOR CASE - MECHANICAL OUTLINE



**LEAD CODE:**

- 1) CATHODE
- 2) ANODE
- 3) GATE

NOTE: TAB IS COMMON  
TO PIN 2 (ANODE)

**MARKING CODE:**

**FULL PART NUMBER**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.057	0.061	1.45	1.55
B	0.019	0.021	0.49	0.52
C	0.175	0.180	4.44	4.56
D	0.376	0.388	9.55	9.85
E	-	0.350	-	8.89
F	-	0.070	-	1.78
G	0.035	0.043	0.90	1.10
H	0.023	0.028	0.59	0.71
J	0.098	0.102	2.49	2.59
K	0.280	0.301	7.12	7.65
L	0.406	0.425	10.30	10.80
M	0.024	0.059	0.60	1.50

TO-202-2 Thyristor (REV: R0)

R1 (14-September 2004)