

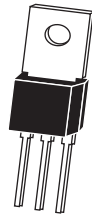
CS202-4B
 CS202-4D
 CS202-4M
 CS202-4N
 4.0 AMP SCR
 200 THRU 800 VOLTS

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CS202-4B series type is an Epoxy Molded Silicon Controlled Rectifier designed for sensing circuit applications and control systems.

MARKING CODE: FULL PART NUMBER



TO-202 THYRISTOR CASE

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

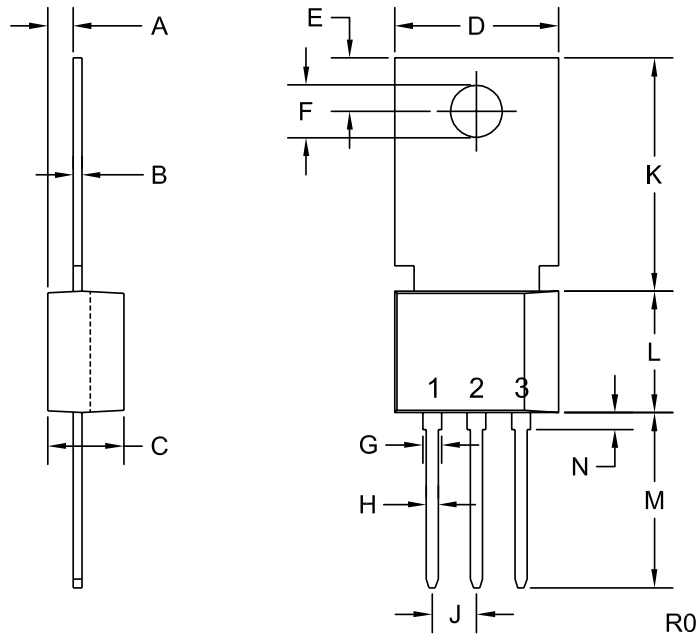
	SYMBOL	CS202 -4B	CS202 -4D	CS202 -4M	CS202 -4N	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	800	V
RMS On-State Current ($T_C=85^\circ\text{C}$)	$I_T(\text{RMS})$		4.0			A
Peak One Cycle Surge ($t=10\text{ms}$)	I_{TSM}		30			A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t		4.5			A ² 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/ μs
Storage Temperature	T_{stg}		-40 to +150			$^\circ\text{C}$
Junction Temperature	T_J		-40 to +125			$^\circ\text{C}$
Thermal Resistance	θ_{JA}		80			$^\circ\text{C}/\text{W}$
Thermal Resistance	θ_{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	μA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{DRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$			200	μA
I_{GT}	$V_D=12\text{V}, R_L=10\Omega$	20	38	200	μA
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/ μs

R3 (14-September 2004)

TO-202 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	0.118	0.134	3.00	3.40
F (DIA)	0.124	0.126	3.15	3.20
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	0.459	0.559	11.66	14.21
L	0.280	0.301	7.12	7.65
M	0.406	0.425	10.30	10.80
N	0.024	0.059	0.60	1.50

TO-202 Thyristor (REV: R0)

R3 (14-September 2004)