

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

4.0 AMP SCR
200 THRU 800 VOLTS



TO-202 CASE



www.centrasemi.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: ($T_C=25^\circ\text{C}$ 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^2s
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	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)

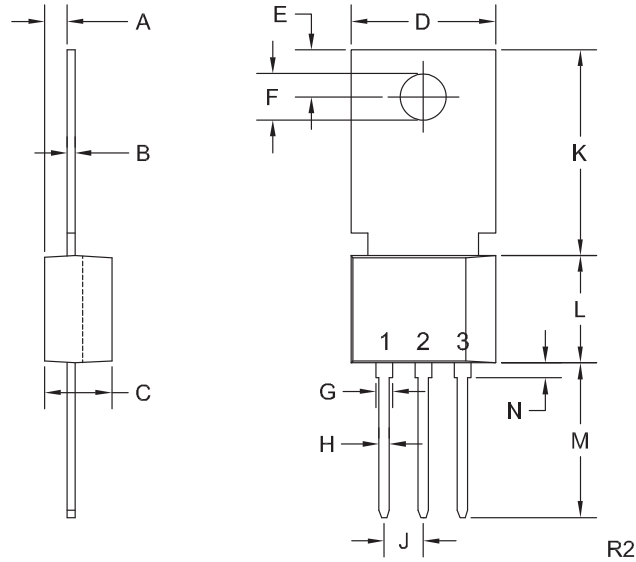
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1.0\text{K}\Omega$			10	μA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1.0\text{K}\Omega, T_C=125^\circ\text{C}$			200	μA
I_{GT}	$V_D=12\text{V}, R_L=10\Omega$	20	38	200	μA
I_H	$I_T=50\text{mA}, R_{GK}=1.0\text{K}\Omega$		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	$V_D=\frac{2}{3} V_{DRM}, R_{GK}=1.0\text{K}\Omega, T_C=125^\circ\text{C}$		10		$\text{V}/\mu\text{s}$

CS202-4B
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CS202-4N

4.0 AMP gSCR
200 THRU 800 VOLTS



TO-202 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING:

FULL PART NUMBER

DIMENSIONS				
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	0.118	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)

R4 (23-January 2012)

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

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