

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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

4.0 AMP SCR 200 THRU 800 VOLTS



www.centralsemi.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 <sub>C</sub> =25°C unless of	otherwise noted)	CS202	CS202	CS202	CS202	
	SYMBOL	<u>-4B</u>	<u>-4D</u>	<u>-4M</u>	<u>-4N</u>	UNITS
Peak Repetitive Off-State Voltage	$V_{DRM}$ , $V_{RRM}$	200	400	600	800	V
RMS On-State Current (T <sub>C</sub> =85°C)	I <sub>T(RMS)</sub>		4	.0		Α
Peak One Cycle Surge (t=10ms)	I <sub>TSM</sub>		3	80		Α
I <sup>2</sup> t Value for Fusing (t=10ms)	I <sup>2</sup> t		4	.5		$A^2s$
Peak Gate Power (tp=20µs)	$P_GM$		3	.0		W
Average Gate Power Dissipation	P <sub>G(AV)</sub>		0	.2		W
Peak Gate Current (tp=20µs)	I <sub>GM</sub>		1	.2		Α
Critical Rate of Rise of On-State Current	di/dt		5	50		A/µs
Storage Temperature	T <sub>stg</sub>		-40 to	o +150		°C
Junction Temperature	TJ		-40 to	o +125		°C
Thermal Resistance	$\Theta_{\sf JA}$		8	80		°C/W
Thermal Resistance	$\Theta$ JC		7	.5		°C/W
ELECTRICAL CHARACTERISTICS: (TC	=25°C unless oth	erwise no	oted)			
SYMBOL TEST CONDITIONS  IDRM, IRRM Rated VDRM, VRRM, RGM	(=1.0ΚΩ	MIN	Т	ΥP	<b>MAX</b> 10	<b>UNITS</b> μΑ

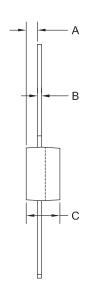
, <b>O</b>		,	8447/	
TEST CONDITIONS	MIN	IYP	MAX	UNITS
Rated $V_{DRM}$ , $V_{RRM}$ , $R_{GK}$ =1.0K $\Omega$			10	μΑ
Rated $V_{DRM}$ , $V_{RRM}$ , $R_{GK}$ =1.0K $\Omega$ , $T_{C}$ =125°C 200			μΑ	
$V_D$ =12V, $R_L$ =10 $\Omega$	20	38	200	μΑ
$I_T$ =50mA, $R_{GK}$ =1.0KΩ		0.25	2.0	mA
$V_D$ =12V, $R_L$ =10 $\Omega$		0.55	0.8	V
I <sub>TM</sub> =8.0A, tp=380μs		1.6	1.8	V
$V_D=^{2/3}V_{DRM}$ , $R_{GK}=1.0K\Omega$ , $T_C=125$ °C		10		V/µs
	TEST CONDITIONS Rated V <sub>DRM</sub> , V <sub>RRM</sub> , R <sub>GK</sub> =1.0KΩ Rated V <sub>DRM</sub> , V <sub>RRM</sub> , R <sub>GK</sub> =1.0KΩ, T <sub>C</sub> =125°C $V_D=12V, R_L=10Ω$ $I_T=50mA, R_{GK}=1.0KΩ$ $V_D=12V, R_L=10Ω$ $I_{TM}=8.0A, tp=380μs$	TEST CONDITIONS MIN Rated $V_{DRM}$ , $V_{RRM}$ , $R_{GK}$ =1.0K $\Omega$ Rated $V_{DRM}$ , $V_{RRM}$ , $R_{GK}$ =1.0K $\Omega$ , $T_{C}$ =125°C $V_{D}$ =12V, $R_{L}$ =10 $\Omega$ 20 $I_{T}$ =50mA, $R_{GK}$ =1.0K $\Omega$ $V_{D}$ =12V, $R_{L}$ =10 $\Omega$ $I_{TM}$ =8.0A, tp=380 $\mu$ s	Rated $V_{DRM}$ , $V_{RRM}$ , $R_{GK}$ =1.0KΩ Rated $V_{DRM}$ , $V_{RRM}$ , $R_{GK}$ =1.0KΩ, $T_{C}$ =125°C $V_{D}$ =12V, $R_{L}$ =10Ω 20 38 $I_{T}$ =50mA, $R_{GK}$ =1.0KΩ 0.25 $V_{D}$ =12V, $R_{L}$ =10Ω 0.55 $I_{TM}$ =8.0A, tp=380μs 1.6	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

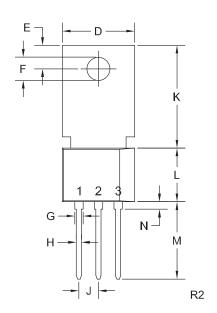
CS202-4B CS202-4D CS202-4M CS202-4N

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					
	INCHES		MILLIMETERS		
SYMBOL	MIN	MAX	MIN	MAX	
Α	0.055	0.071	1.40	1.80	
В	0.016	0.024	0.40	0.60	
С	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	
Н	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	
М	0.406	0.531	10.3	13.5	
N	0.024	0.059	0.60	1.50	
		Т	O-202 (F	REV: R2)	

R4 (23-January 2012)

#### **OUTSTANDING SUPPORT AND SUPERIOR SERVICES**



#### 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 (2<sup>nd</sup> 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

#### **CONTACT US**

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# Product End of Life Notification

PDN ID:	PDN01052
Notification Date:	8/24/16
Last Buy Date:	2/24/17
Last Shipment Date	8/24/17

Summary: The CS202 series of Silicon Controlled Rectifiers in the TO-202 case is discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

Central Part Number	Replacement
CS202-4B	N/A
CS202-4B-2	N/A
CS202-4D	N/A
CS202-4D-2	N/A
CS202-4M	N/A
CS202-4M-2	N/A
CS202-4N	N/A
CS202-4N-2	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

CCC785 REV 002