

CS92B
CS92D
CS92M
CS92N

SILICON CONTROLLED RECTIFIER
0.8 AMP, 200 THRU 800 VOLTS



TO-92 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CS92B series type is an epoxy molded Silicon Controlled Rectifier designed for sensing circuit applications and control systems.

MARKING CODE: FULL PART NUMBER

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

	<u>SYMBOL</u>	<u>CS92B</u>	<u>CS92D</u>	<u>CS92M</u>	<u>CS92N</u>	<u>UNITS</u>
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	800	V
RMS On-State Current ($T_C=90^\circ\text{C}$)	$I_T(\text{RMS})$		0.8			A
Peak One Cycle Surge ($t=10\text{ms}$)	I_{TSM}		10			A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t		0.24			A^2s
Peak Gate Power ($t_p=10\mu\text{s}$)	P_{GM}		2.0			W
Average Gate Power Dissipation	$P_G (\text{AV})$		0.1			W
Peak Gate Current ($t_p=10\mu\text{s}$)	I_{GM}		1.0			A
Peak Gate Voltage ($t_p=10\mu\text{s}$)	V_{GM}		8.0			V
Storage Temperature	T_{stg}		-40 to +150			$^\circ\text{C}$
Junction Temperature	T_J		-40 to +125			$^\circ\text{C}$
Thermal Resistance	θ_{JA}		200			$^\circ\text{C/W}$
Thermal Resistance	θ_{JC}		100			$^\circ\text{C/W}$

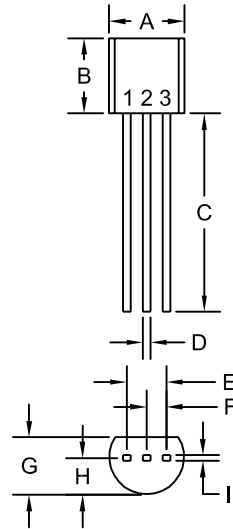
ELECTRICAL CHARACTERISTICS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>TYP</u>	<u>MAX</u>	<u>UNITS</u>
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega$			1.0	μA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$			100	μA
I_{GT}	$V_D=12\text{V}$			200	μA
I_H	$I_T=100\text{mA}, R_{GK}=1\text{K}\Omega$			5.0	mA
V_{GT}	$V_D=12\text{V}$			0.8	V
V_{TM}	$I_{TM}=1.0\text{A}, t_p=380\mu\text{s}$			1.7	V
dv/dt	$V_D=2/3 V_{DRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$	25			$\text{V}/\mu\text{s}$

R3 (22-April 2004)

SILICON CONTROLLED RECTIFIER
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TO-92 CASE - MECHANICAL OUTLINE



R1

LEAD CODE:

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

MARKING CODE:

FULL PART NUMBER

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

R3 (22-April 2004)