

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)

	SYMBOL	CS92B	CS92D	CS92M	CS92N	UNITS
Peak Repetitive Off-State Voltage	$V_{\text{DRM}}, V_{\text{RRM}}$	200	400	600	800	V
RMS On-State Current ($T_C=90^{\circ}\text{C}$)	$I_{\text{T(RMS)}}$		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	$P_{\text{G (AV)}}$		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			$^{\circ}\text{C/W}$

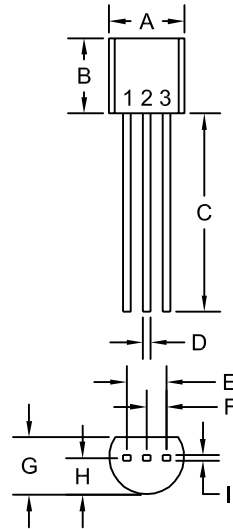
ELECTRICAL CHARACTERISTICS: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

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

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

DIMENSIONS				
SYMBOL	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)

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 (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

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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