

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

www.centrasemi.com

CS55B
CS55D

SILICON CONTROLLED RECTIFIER
0.8 AMPS, 200 AND 400 VOLTS

TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CS55B series type are epoxy molded silicon controlled rectifiers designed for applications requiring a low gate sensitivity.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

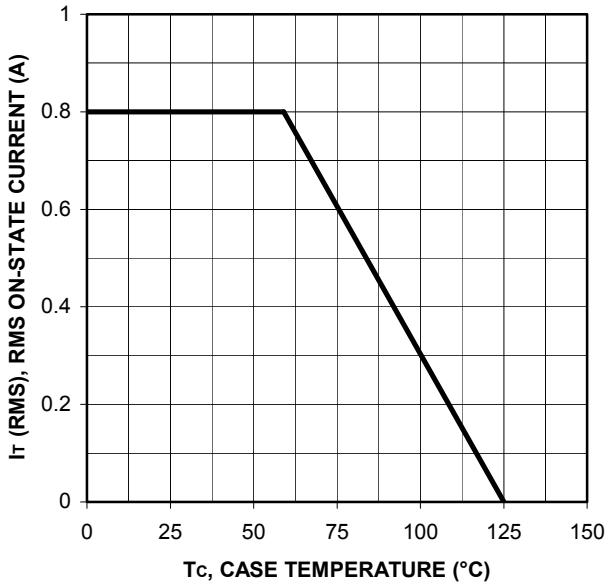
	SYMBOL	CS55B	CS55D	UNITS
Peak Repetitive Off-State Voltage	V _{DRM} , V _{RRM}	200	400	V
RMS On-State Current (T _C =60°C)	I _{T(RMS)}	0.8		A
Peak One Cycle Surge (t=10ms)	I _{TSM}	10		A
I ² t Value for Fusing (t=10ms)	I ² t	0.24		A ² s
Peak Gate Power (tp=10μs)	P _{GM}	2.0		W
Average Gate Power Dissipation	P _{G(AV)}	0.1		W
Peak Gate Current (tp=10μs)	I _{GM}	1.0		A
Peak Gate Voltage (tp=10μs)	V _{GM}	8.0		V
Storage Temperature	T _{stg}	-40 to +125		°C
Junction Temperature	T _J	-40 to +125		°C
Thermal Resistance	θ _{JA}	200		°C/W
Thermal Resistance	θ _{JC}	100		°C/W

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

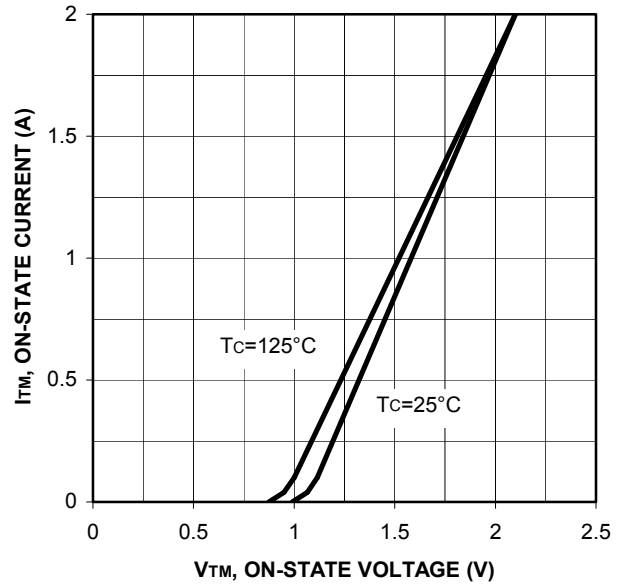
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , R _{GK} =1KΩ			1.00	μA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , R _{GK} =1KΩ, T _C =125°C		100		μA
I _{GT}	V _D =12V			200	μA
I _H	R _{GK} =1KΩ			5.00	mA
V _{GT}	V _D =12V			0.8	V
V _{TM}	I _{TM} =1.0A			1.70	V
dv/dt	V _D =.67 x V _{DRM} , R _{GK} =1KΩ, T _C =125°C	25			V/μs

(SEE REVERSE SIDE)

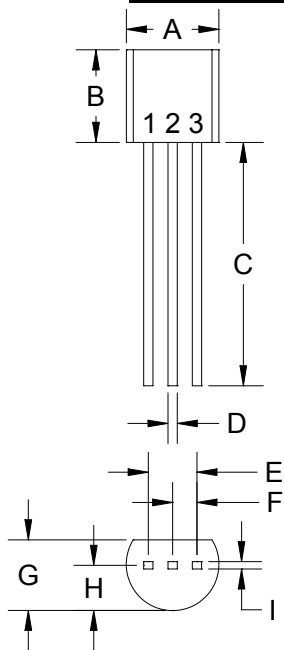
RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



TO-92 PACKAGE - MECHANICAL OUTLINE



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)

Lead Code: 1) Anode
2) Gate
3) Cathode

R1

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