

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

CS48-35B
CS48-35D
CS48-35M
CS48-35N
CS48-35P
CS48-35PB

**SILICON CONTROLLED RECTIFIER
35 AMP, 200 THRU 1200 VOLTS**

JEDEC TO-48 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CS48-35B series types are High Power Silicon Controlled Rectifiers designed for phase control applications.

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

	SYMBOL	CS48 -35B	CS48 -35D	CS48 -35M	CS48 -35N	CS48 -35P	CS48 -35PB	UNITS
Peak Repetitive Off-State Voltage	V _{DRM} , V _{RRM}	200	400	600	800	1000	1200	V
RMS On-State Current (T _C = 75°C)	I _{T(RMS)}				35			A
Peak One Cycle Surge (t = 10ms)	I _{TSM}				330			A
I ² t Value for Fusing (t = 10ms)	I ² t				545			A ² s
Peak Gate Power (tp = 10μs)	P _{GM}				60			W
Average Gate Power Dissipation	P _{G(AV)}				1.0			W
Peak Forward Gate Current (tp = 10μs)	I _{FGM}				10			A
Peak Forward Gate Voltage (tp = 10μs)	V _{FGM}				16			V
Peak Reverse Gate Voltage (tp = 10μs)	V _{RGM}				5.0			V
Critical Rate of Rise of On-State Current	di/dt				100			A/μs
Storage Temperature	T _{stg}				-40 to +150			°C
Junction Temperature	T _J				-40 to +125			°C
Thermal Resistance	θ _{J-C}				1.0			°C/W

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

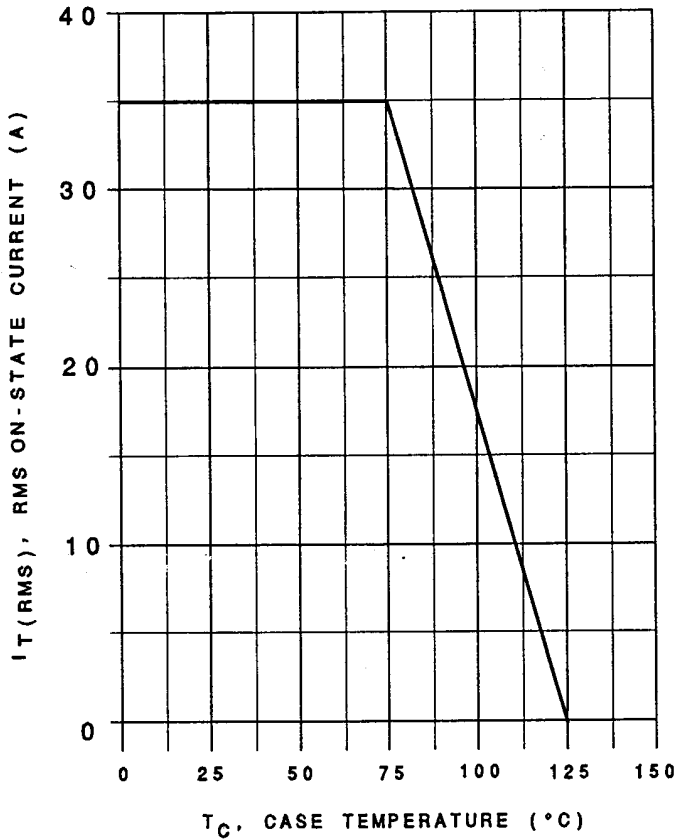
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM}			0.02	mA
I _{DRM} , I _{RRM}	Rated V _{DRM} , V _{RRM} , T _C = 125°C			3.30	mA
I _{GT}	V _D = 12V, R _L = 33Ω			40	mA
I _H	I _T = 500mA			100	mA
V _{GT}	V _D = 12V, R _L = 33Ω			1.50	V
V _{TM}	I _{TM} = 70A, tp = 10ms			2.30	V
dv/dt	V _D = .67 x V _{DRM} , T _C = 125°C	200			V/μs

(OVER)

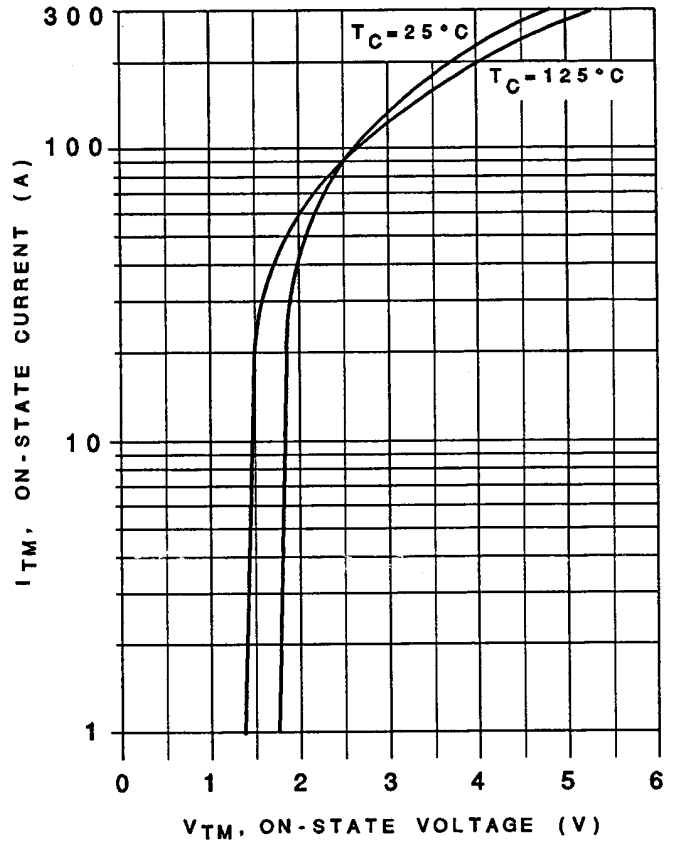
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CS48-35B SERIES RATING AND CHARACTERISTIC CURVES

RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL DIMENSIONS

