

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

	<u>SYMBOL</u>	<u>CS48 -35B</u>	<u>CS48 -35D</u>	<u>CS48 -35M</u>	<u>CS48 -35N</u>	<u>CS48 -35P</u>	<u>CS48 -35PB</u>	<u>UNITS</u>
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	800	1000	1200	V
RMS On-State Current ($T_C = 75^\circ\text{C}$)	$I_T(\text{RMS})$				35			A
Peak One Cycle Surge ($t = 10\text{ms}$)	I_{TSM}				330			A
I^2t Value for Fusing ($t = 10\text{ms}$)	I^2t				545			A^2s
Peak Gate Power ($t_p = 10\mu\text{s}$)	P_{GM}				60			W
Average Gate Power Dissipation	$P_{G(AV)}$				1.0			W
Peak Forward Gate Current ($t_p = 10\mu\text{s}$)	I_{FGM}				10			A
Peak Forward Gate Voltage ($t_p = 10\mu\text{s}$)	V_{FGM}				16			V
Peak Reverse Gate Voltage ($t_p = 10\mu\text{s}$)	V_{RGM}				5.0			V
Critical Rate of Rise of On-State Current	di/dt				100			$\text{A}/\mu\text{s}$
Storage Temperature	T_{stg}			-40 to +150				$^\circ\text{C}$
Junction Temperature	T_J			-40 to +125				$^\circ\text{C}$
Thermal Resistance	θ_{J-C}			1.0				$^\circ\text{C}/\text{W}$

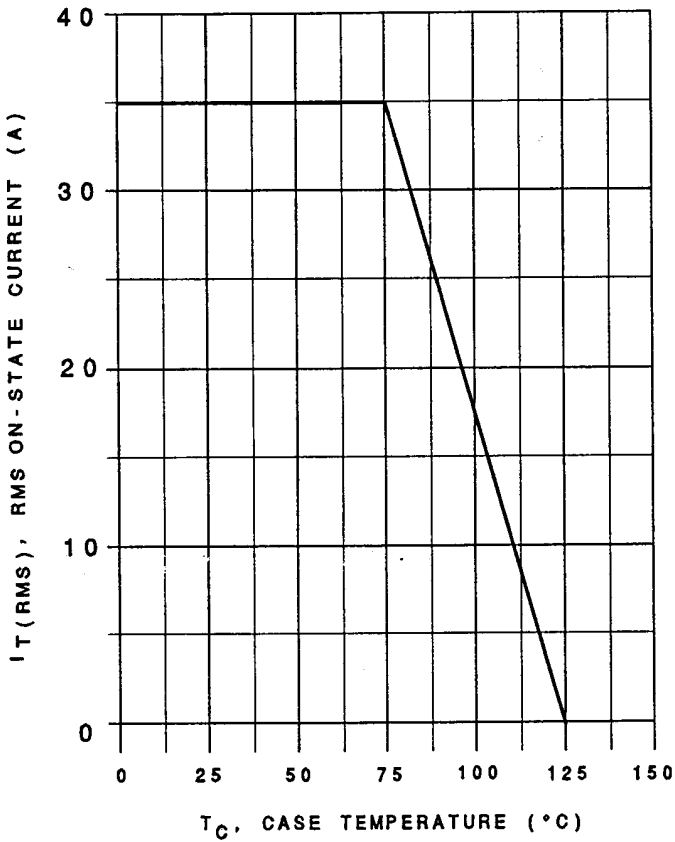
ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

<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}			0.02	mA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, T_C = 125^\circ\text{C}$			3.30	mA
I_{GT}	$V_D = 12\text{V}, R_L = 33\Omega$			40	mA
I_H	$I_T = 500\text{mA}$			100	mA
V_{GT}	$V_D = 12\text{V}, R_L = 33\Omega$			1.50	V
V_{TM}	$I_{TM} = 70\text{A}, t_p = 10\text{ms}$			2.30	V
dv/dt	$V_D = .67 \times V_{DRM}, T_C = 125^\circ\text{C}$	200			$\text{V}/\mu\text{s}$

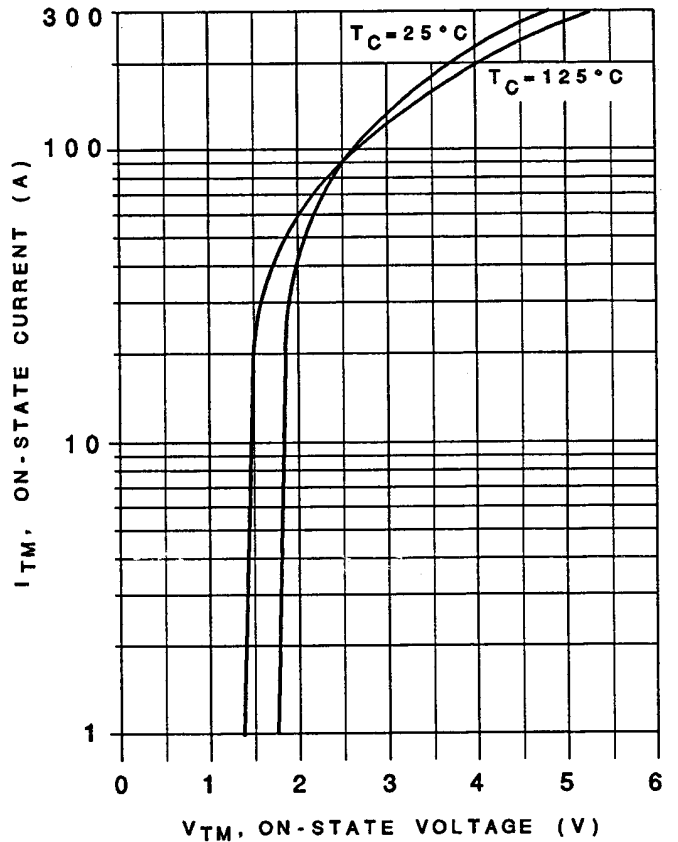
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CS48-35B SERIES RATING AND CHARACTERISTIC CURVES

RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL DIMENSIONS

