Central™
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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 ($T_C = 25^oC$ 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 ($T_C = 75^oC$)	$I_{T(RMS)}$			35				A
Peak One Cycle Surge (t = 10ms)	I_{TSM}			330				A
I^2t Value for Fusing (t = 10ms)	I^2t			545				A^2s
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				^oC
Junction Temperature	T_J			-40 to +125				^oC
Thermal Resistance	Θ_{J-C}			1.0				$^oC/W$

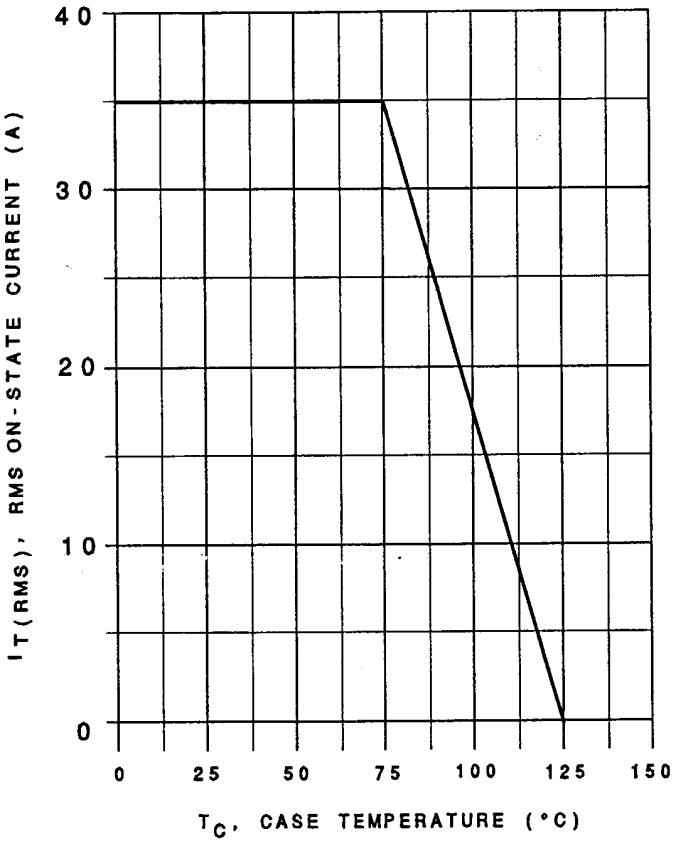
ELECTRICAL CHARACTERISTICS ($T_C = 25^oC$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}			0.02	mA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, T_C = 125^oC$			3.30	mA
I_{GT}	$V_D = 12V, R_L = 33\Omega$			40	mA
I_H	$I_T = 500mA$			100	mA
V_{GT}	$V_D = 12V, R_L = 33\Omega$			1.50	V
V_{TM}	$I_{TM} = 70A$, tp = 10ms			2.30	V
dv/dt	$V_D = .67 \times V_{DRM}, T_C = 125^oC$	200			V/μs

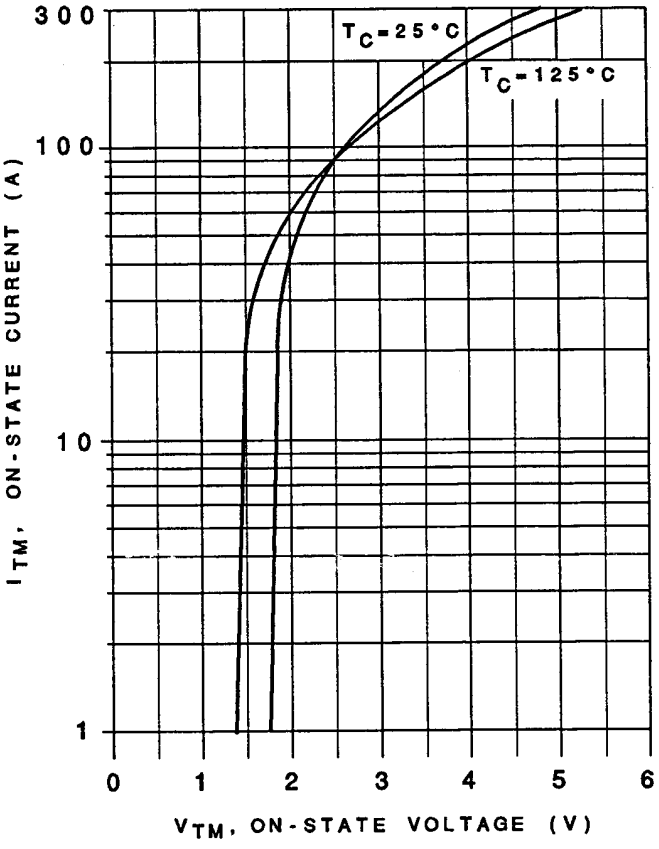
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CS48-35B SERIES RATING AND CHARACTERISTIC CURVES

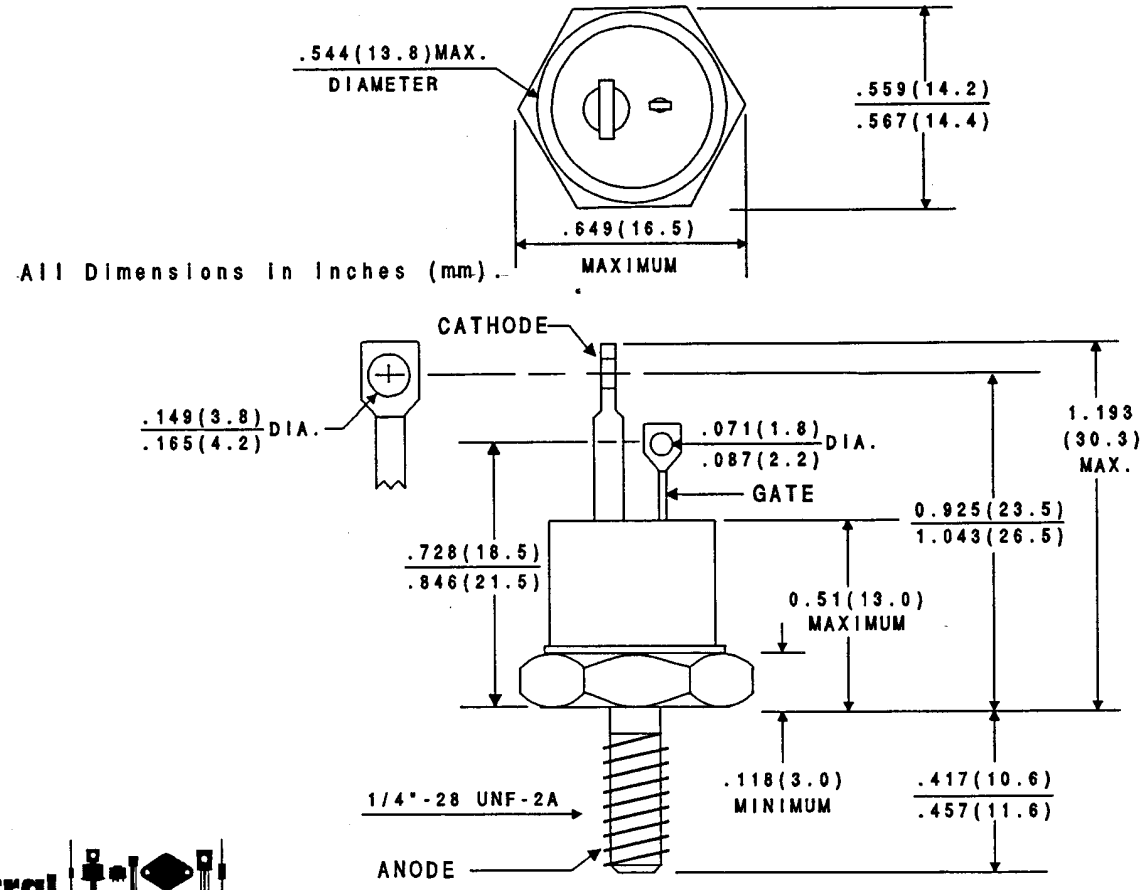
RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL DIMENSIONS



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