

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)

	SYMBOL	CS48 -35B	CS48 -35D	CS48 -35M	CS48 -35N	CS48 -35P	CS48 -35PB	UNITS
Peak Repetitive Off-State Voltage	$V_{\text{DRM}}, V_{\text{RRM}}$	200	400	600	800	1000	1200	V
RMS On-State Current ($T_C = 75^\circ\text{C}$)	$I_{\text{T(RMS)}}$				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	$P_{\text{G(AV)}}$				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	$\theta_{\text{J-C}}$			1.0				$^\circ\text{C}/\text{W}$

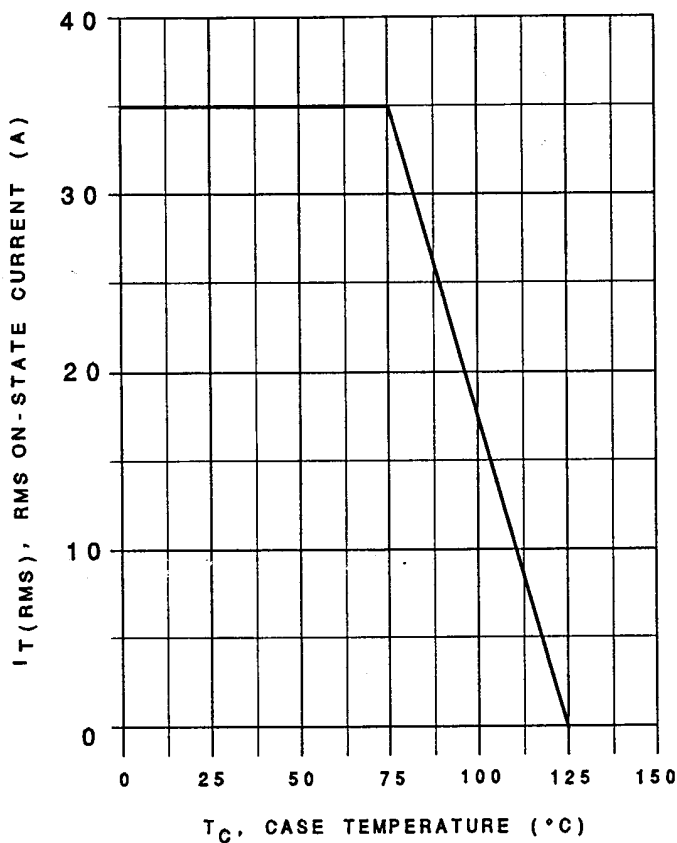
ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}$			0.02	mA
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, T_C = 125^\circ\text{C}$			3.30	mA
I_{GT}	$V_{\text{D}} = 12\text{V}, R_{\text{L}} = 33\Omega$			40	mA
I_{H}	$I_{\text{T}} = 500\text{mA}$			100	mA
V_{GT}	$V_{\text{D}} = 12\text{V}, R_{\text{L}} = 33\Omega$			1.50	V
V_{TM}	$I_{\text{TM}} = 70\text{A}, t_p = 10\text{ms}$			2.30	V
dv/dt	$V_{\text{D}} = .67 \times V_{\text{DRM}}, T_C = 125^\circ\text{C}$	200			$\text{V}/\mu\text{s}$

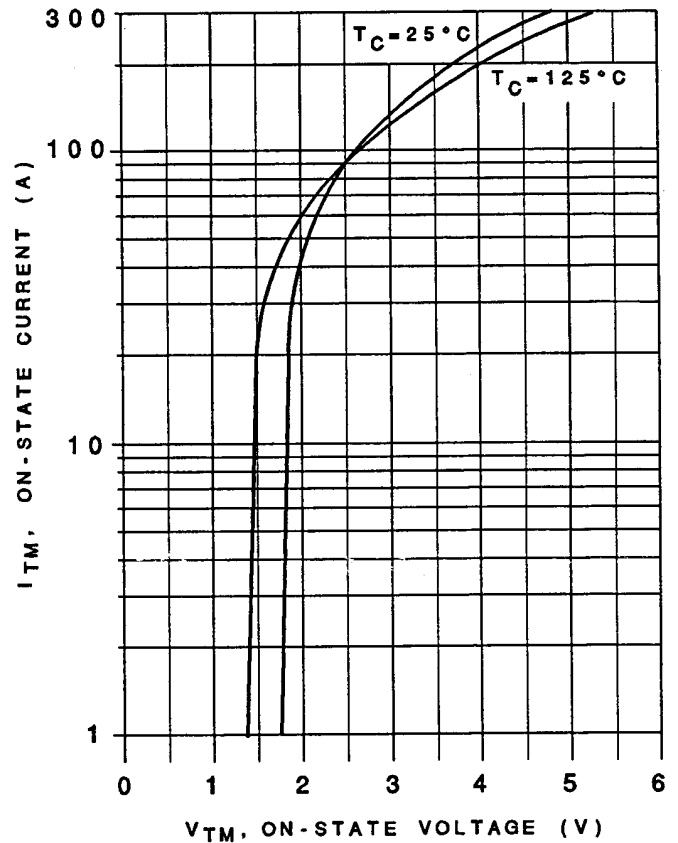
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CS48-35B SERIES RATING AND CHARACTERISTIC CURVES

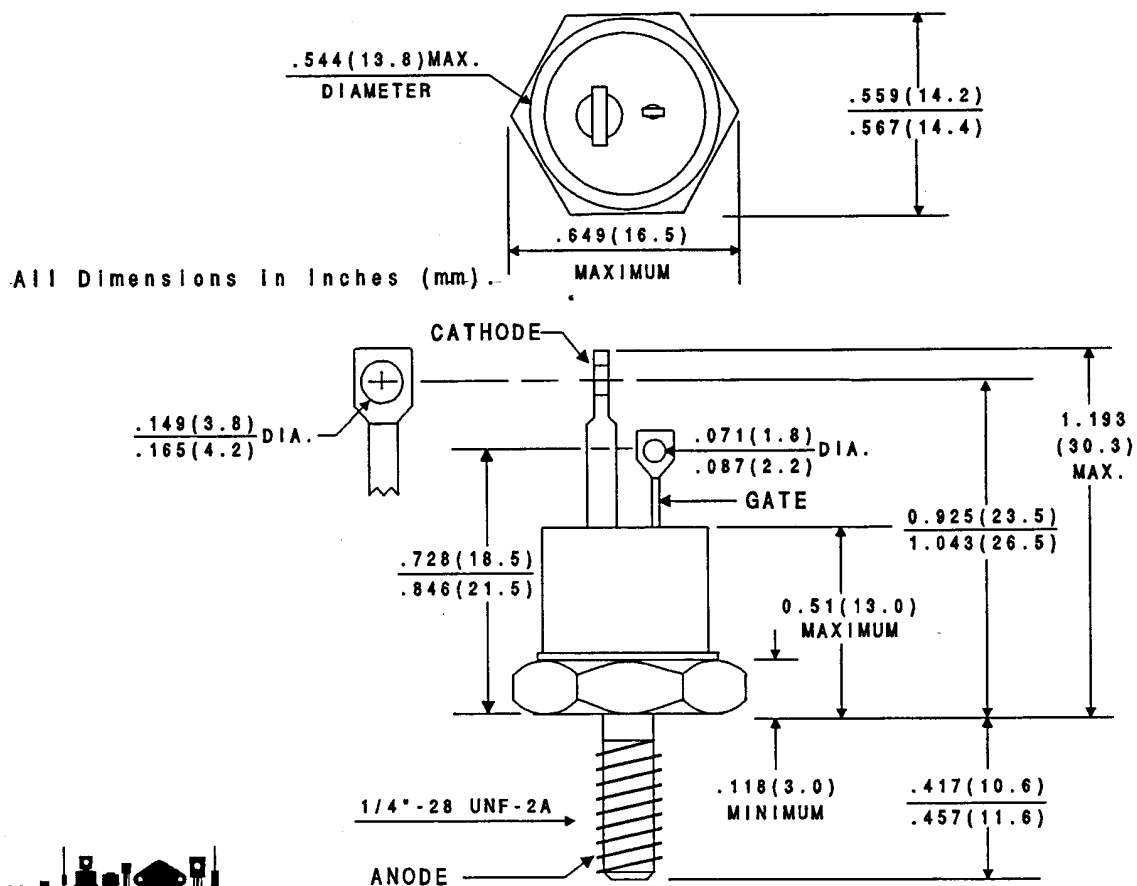
RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL DIMENSIONS



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

CONTACT US

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