

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

CQ48-35B
CQ48-35D
CQ48-35M
CQ48-35N

35 AMP TRIAC
200 THRU 800 VOLTS

JEDEC TO-48 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CQ48-35B series types are Power Triacs, utilizing a Glass Passivated Process, mounted in a hermetically sealed metal case, designed for AC control applications featuring gate triggering in all four (4) quadrants.

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

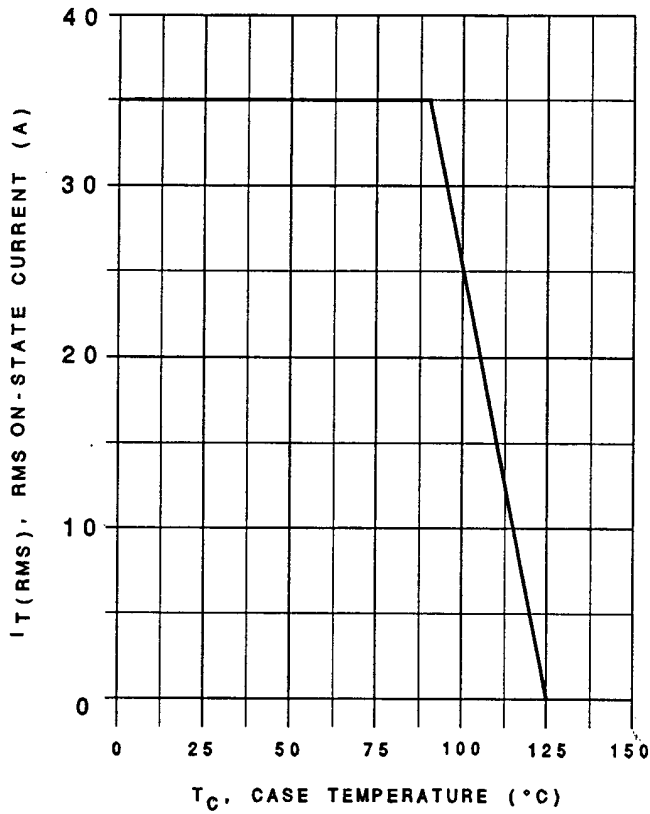
	SYMBOL	CQ48 -35B	CQ48 -35D	CQ48 -35M	CQ48 -35N	UNITS
Peak Repetitive Off-State Voltage	V _{DRM}	200	400	600	800	V
RMS On-State Current (T _C = 90°C)	I _{T(RMS)}			35		A
Peak One Cycle Surge (t = 10ms)	I _{TSM}			300		A
I ² t Value for Fusing (t = 10ms)	I ² t			450		A ² s
Peak Gate Power (tp = 10μs)	P _{GM}			40		W
Average Gate Power Dissipation	P _{G(AV)}			1.0		W
Peak Gate Current (tp = 10μs)	I _{GM}			6.0		A
Peak Gate Voltage (tp = 10μs)	V _{GM}			16		V
Critical Rate of Rise of On-State Current						
Repetitive (F = 50Hz)	di/dt			20		A/μs
Storage Temperature	T _{stg}		-40 to +150			°C
Junction Temperature	T _J		-40 to +125			°C
Thermal Resistance	θ _{J-C}			1.1		°C/W

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

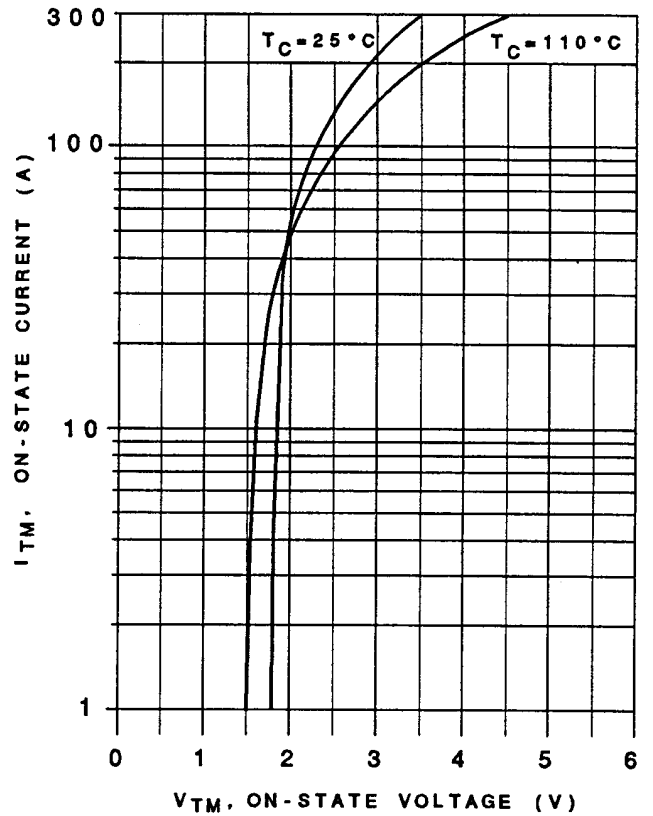
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{DRM}	Rated V _{DRM}			0.02	mA
I _{DRM}	Rated V _{DRM} , T _C = 110°C			4.00	mA
I _{GT}	V _D = 12V, R _L = 33Ω, QUAD I,II,III			100	mA
I _{GT}	V _D = 12V, R _L = 33Ω, QUAD IV			150	mA
I _H	I _T = 500mA			100	mA
V _{GT}	V _D = 12V, R _L = 33Ω, QUAD I,II,III,IV			1.50	V
V _{TM}	I _{TM} = 49A, tp = 10ms			2.00	V
dv/dt	V _D = 2/3 V _{DRM} , R _{GK} = ∞, T _C = 110°C	250			V/μs

CQ48-35B SERIES RATING AND CHARACTERISTIC CURVES

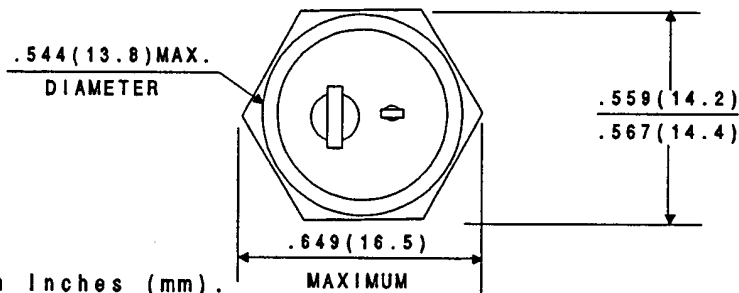
RMS ON-STATE CURRENT vs. CASE TEMPERATURE



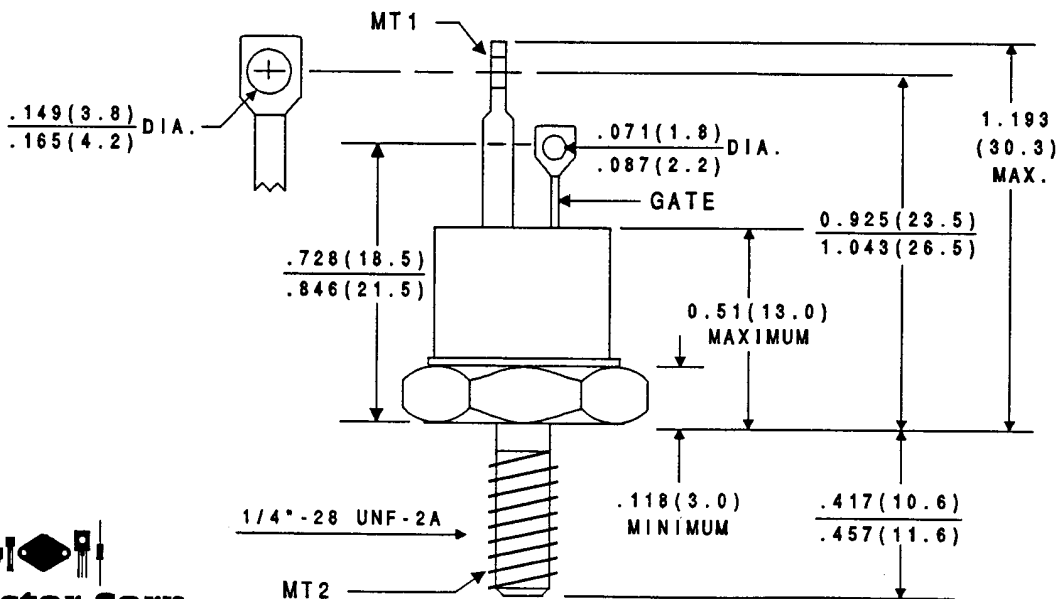
MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL DIMENSIONS



All Dimensions in Inches (mm).



OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

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