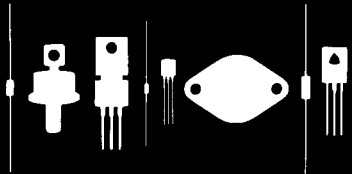


Central
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 145 Adams Avenue
 Hauppauge, New York 11788



CQ48-25B
 CQ48-25D
 CQ48-25M
 CQ48-25N

25 AMP TRIAC
 200 THRU 800 VOLTS

JEDEC TO-48 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CQ48-25B 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 -25B	CQ48 -25D	CQ48 -25M	CQ48 -25N	UNITS
Peak Repetitive Off-State Voltage	V _{DRM}	200	400	600	800	V
RMS On-State Current (T _C = 90°C)	I _{T(RMS)}			25		A
Peak One Cycle Surge (t = 10ms)	I _{TM}			250		A
I ² t Value for Fusing (t = 10ms)	I ² t			312.5		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}		1.2			°C/W

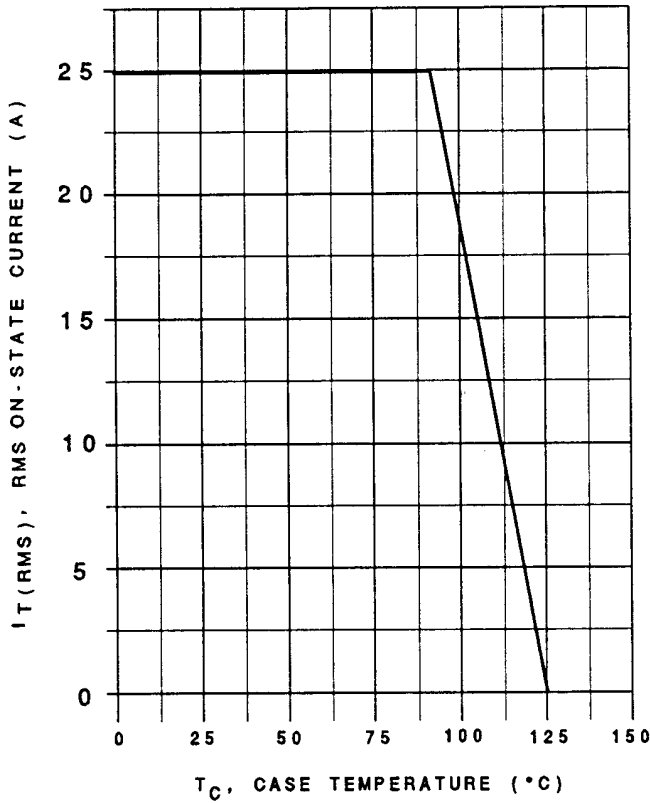
ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{DRM}	Rated V _{DRM}			0.02	mA
I _{DRM}	Rated V _{DRM} , T _C = 110°C			5.00	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} = 35A, tp = 10ms			2.00	V
dv/dt	V _D = 2/3 V _{DRM} , R _{GK} = ∞, T _C = 110°C	250			V/μs

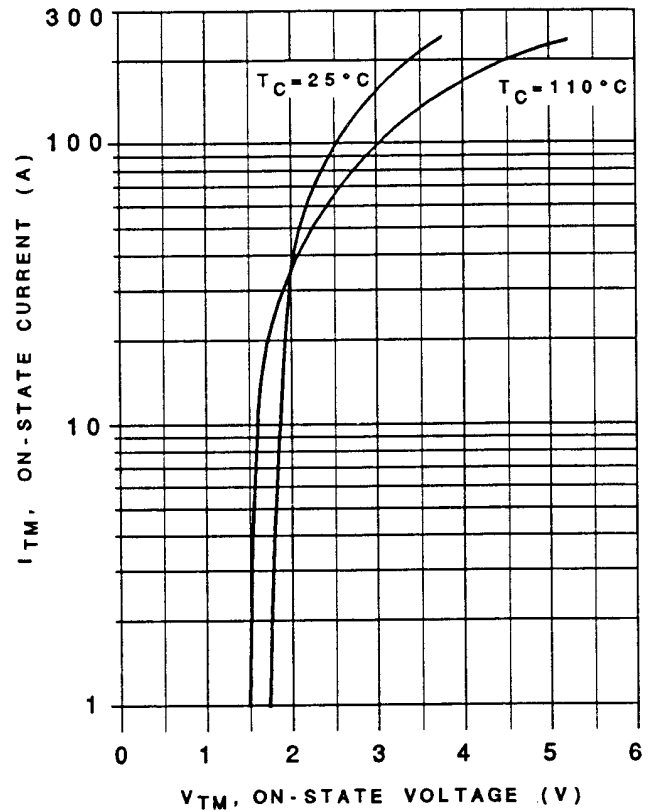
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 Tel: (631) 435-1110 • Fax: (631) 435-1824

CQ48-25B SERIES RATING AND CHARACTERISTIC CURVES

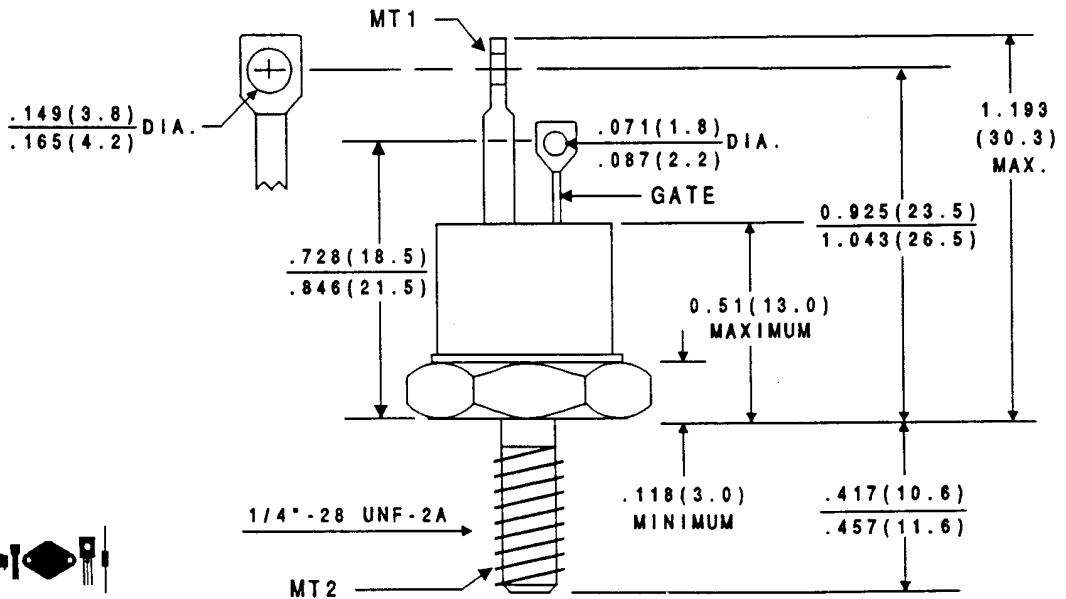
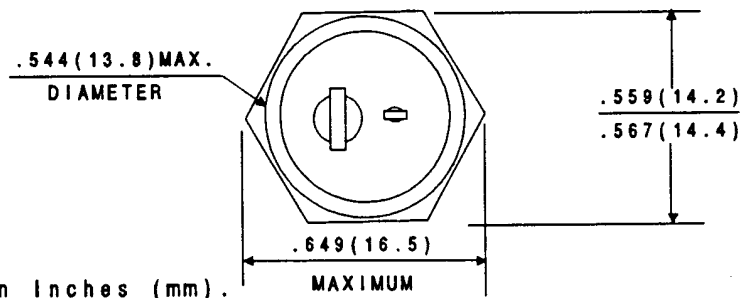
RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL DIMENSIONS



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

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

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