

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

CQ218I-40B
CQ218I-40D
CQ218I-40M
CQ218I-40N

ISOLATED TAB TRIAC
40 AMP, 200 THRU 800 VOLTS

TO-218 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CQ218I-40B series type is an Epoxy Molded Silicon Triac designed for full wave AC control applications featuring gate triggering in all four (4) quadrants. This device is mounted in a TO-218 case with an isolated mounting tab.

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

	SYMBOL	CQ218I -40B	CQ218I -40D	CQ218I -40M	CQ218I -40N	UNITS
Peak Repetitive Off-State Voltage	V _{DRM}	200	400	600	800	V
RMS On-State Current (T _C = 90°C)	I _{T(RMS)}			40		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}			10		A
Peak Gate Voltage (tp = 10μs)	V _{GM}			16		V
Critical Rate of Rise of On-State Current						
Repetitive (F = 50Hz)	di/dt			10		A/μs
Storage Temperature	T _{stg}		-40 to +150			°C
Junction Temperature	T _J		-40 to +125			°C
Thermal Resistance	θ _{J-A}		50			°C/W
Thermal Resistance	θ _{J-C}		1.2			°C/W
Isolation Voltage	V _{ISO}		2500			V _(RMS)

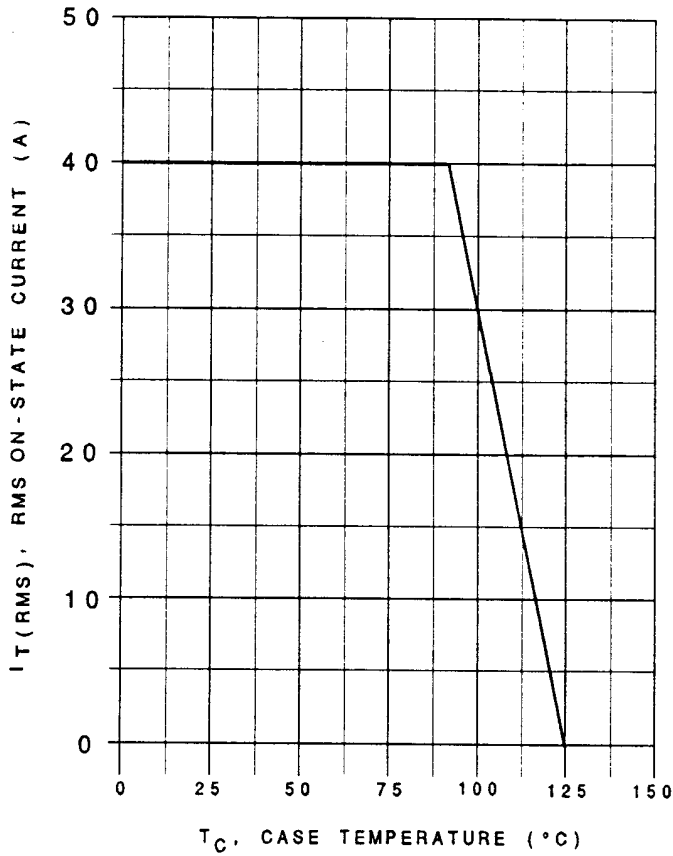
ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{DRM}	Rated V _{DRM}			0.01	mA
I _{DRM}	Rated V _{DRM} , T _C = 125°C			6.00	mA
I _{GT}	V _D = 12V, R _L = 33Ω, QUAD I,II,III			50	mA
I _{GT}	V _D = 12V, R _L = 33Ω, QUAD IV			100	mA
I _H	I _T = 500mA			80	mA
V _{GT}	V _D = 12V, R _L = 33Ω, QUAD I,II,III,IV			1.50	V
V _{TM}	I _{TM} = 56A, tp = 10ms			1.80	V
dv/dt	V _D = 2/3 V _{DRM} , R _{GK} = ∞, T _C = 125°C	250			V/μs

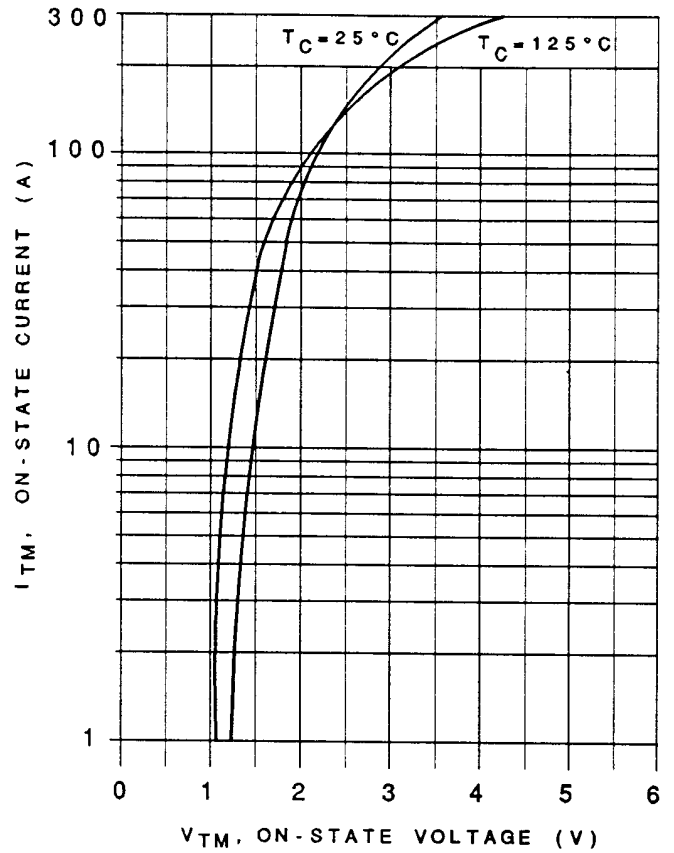
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CQ218I-40B SERIES RATING AND CHARACTERISTIC CURVES

RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL OUTLINE

ALL DIMENSIONS IN INCHES (mm).

