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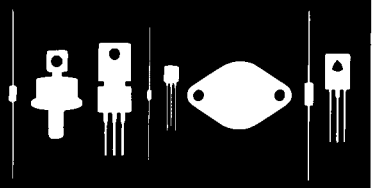
145 Adams Avenue
Hauppauge, New York 11788



CQ220-10B
CQ220-10D
CQ220-10M
CQ220-10N

10 AMP TRIAC
200 THRU 800 VOLTS

JEDEC TO-220AB CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CQ220-10B series type is an Epoxy Molded Silicon Triac designed for full wave AC control applications featuring gate triggering in all four (4) quadrants.

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

	SYMBOL	CQ220 -10B	CQ220 -10D	CQ220 -10M	CQ220 -10N	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}	200	400	600	800	V
RMS On-State Current ($T_C = 90°C$)	$I_{T(RMS)}$			10		A
Peak One Cycle Surge (t = 10ms)	I_{TSM}			100		A
I^2t Value for Fusing (t = 10ms)	I^2t			50		A^2s
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}			4.0		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 +110		°C
Thermal Resistance	Θ_{J-A}			60		°C/W
Thermal Resistance	Θ_{J-C}			3.1		°C/W

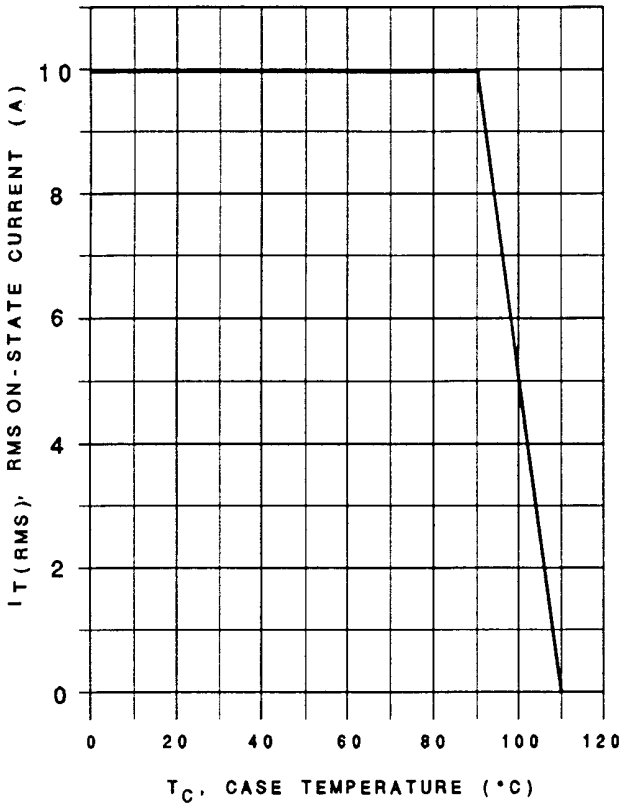
ELECTRICAL CHARACTERISTICS ($T_C = 25°C$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}	Rated V_{DRM}			0.01	mA
I_{DRM}	Rated V_{DRM}, $T_C = 110°C$			0.50	mA
I_{GT}	$V_D = 12V$, $R_L = 33\Omega$, QUAD I,II,III			25	mA
I_{GT}	$V_D = 12V$, $R_L = 33\Omega$, QUAD IV			50	mA
I_H	$I_T = 100mA$			25	mA
V_{GT}	$V_D = 12V$, $R_L = 33\Omega$, QUAD I,II,III,IV			1.50	V
V_{TM}	$I_{TM} = 14A$, tp = 10ms			1.50	V
dv/dt	$V_D = \frac{2}{3}V_{DRM}$, $R_{GK} = \infty$, $T_C = 110°C$	100			V/μs

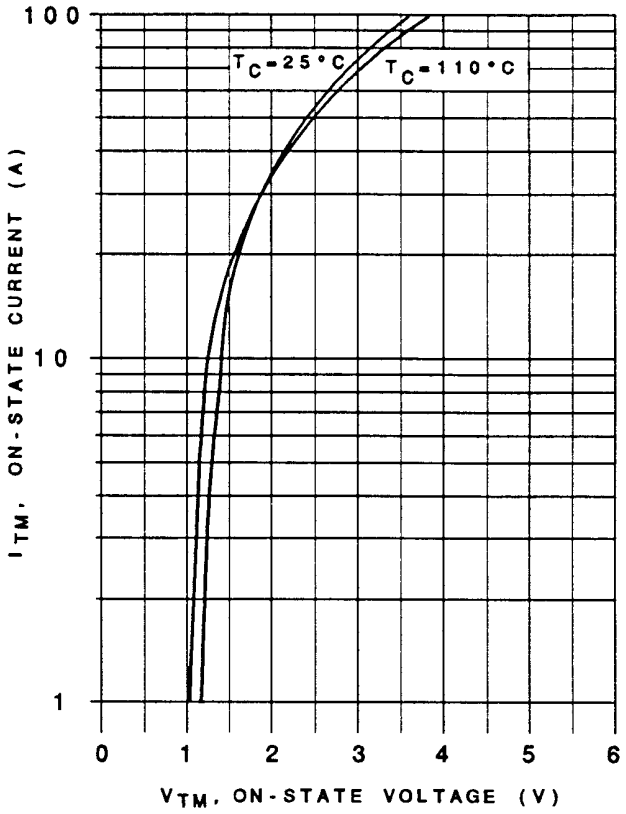
(OVER)

CQ220-10B SERIES RATING AND CHARACTERISTIC CURVES

RMS ON-STATE CURRENT vs. CASE TEMPERATURE

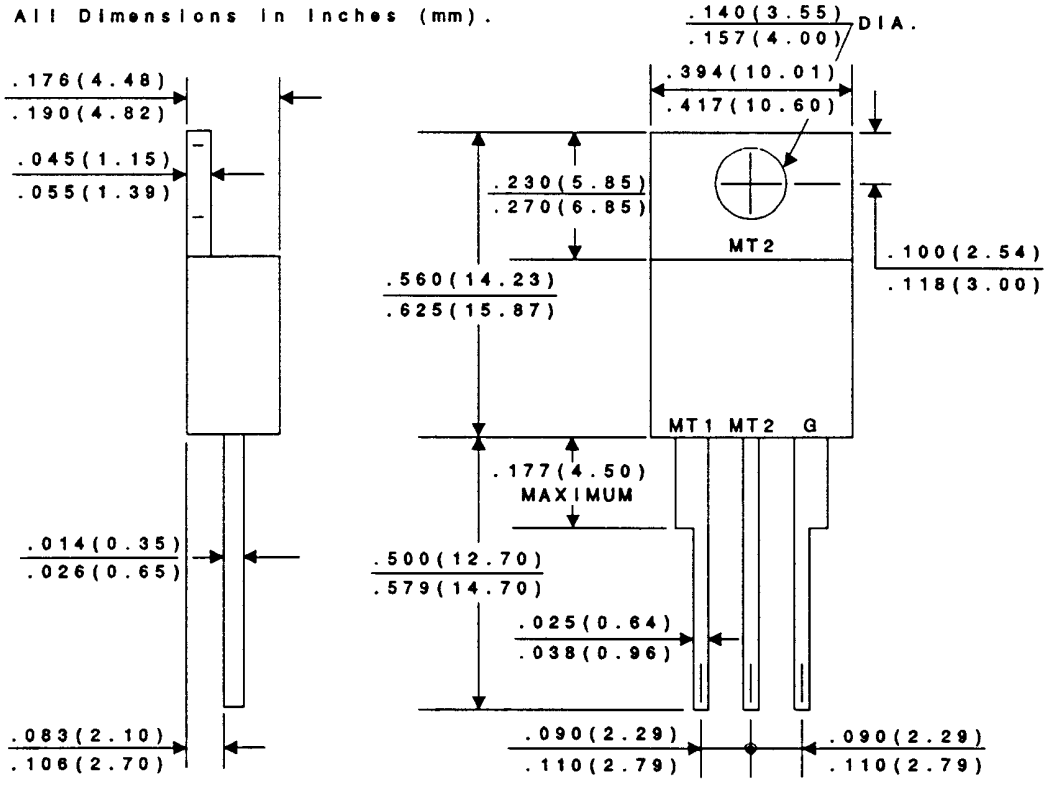


MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL DIMENSIONS

All Dimensions In Inches (mm).



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