Central
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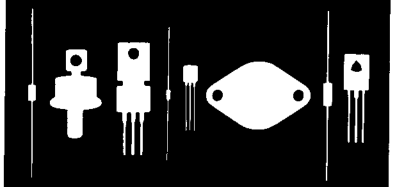
145 Adams Avenue
Hauppauge, New York 11788



CQ3P-25B
CQ3P-25D
CQ3P-25M
CQ3P-25N

ISOLATED 30 AMP TRIAC
200 THRU 800 VOLTS

TO-3P CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CQ3P-25B series types are Epoxy Molded Silicon Triacs mounted on an isolated TO-3 metal platform, designed for full wave AC control applications featuring gate triggering in all four (4) quadrants.

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

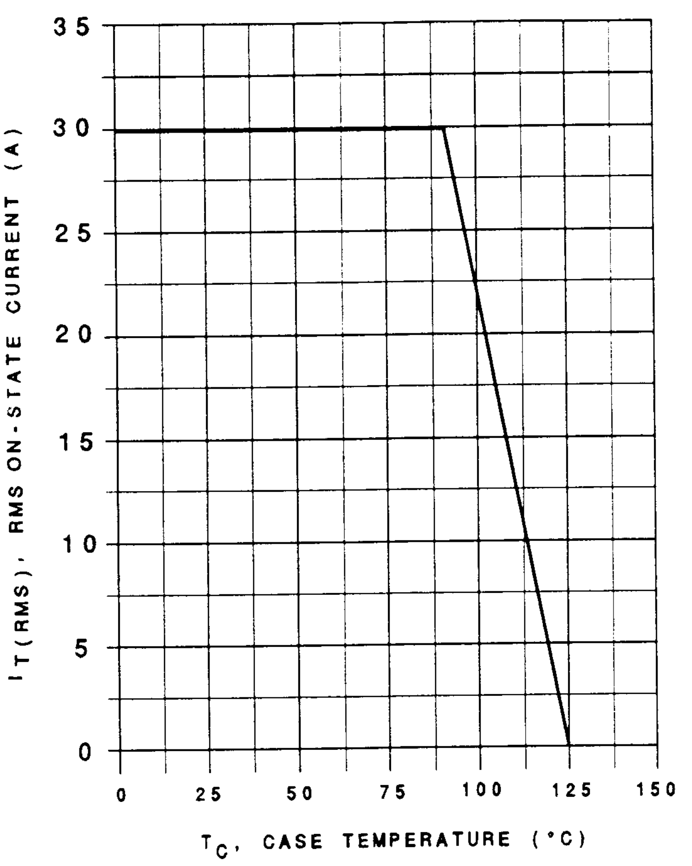
	SYMBOL	CQ3P -25B	CQ3P -25D	CQ3P -25M	CQ3P -25N	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}	200	400	600	800	V
RMS On-State Current ($T_C = 90°C$)	$I_{T(RMS)}$	30				A
Peak One Cycle Surge (t = 10ms)	I_{TSM}	250				A
I^2t Value for Fusing (t = 10ms)	I^2t	312.5				A^2s
Peak Gate Power (tp = 10μs)	P_{GM}	40				W
Average Gate Power Dissipation	$P_{G(AV)}$	1.0				W
Peak Gate Current (tp = 10μs)	I_{GM}	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	$\Theta_{J\text{-}C}$	1.5				°C/W
Isolation Voltage	V_{ISO}	2500				$V_{(RMS)}$

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

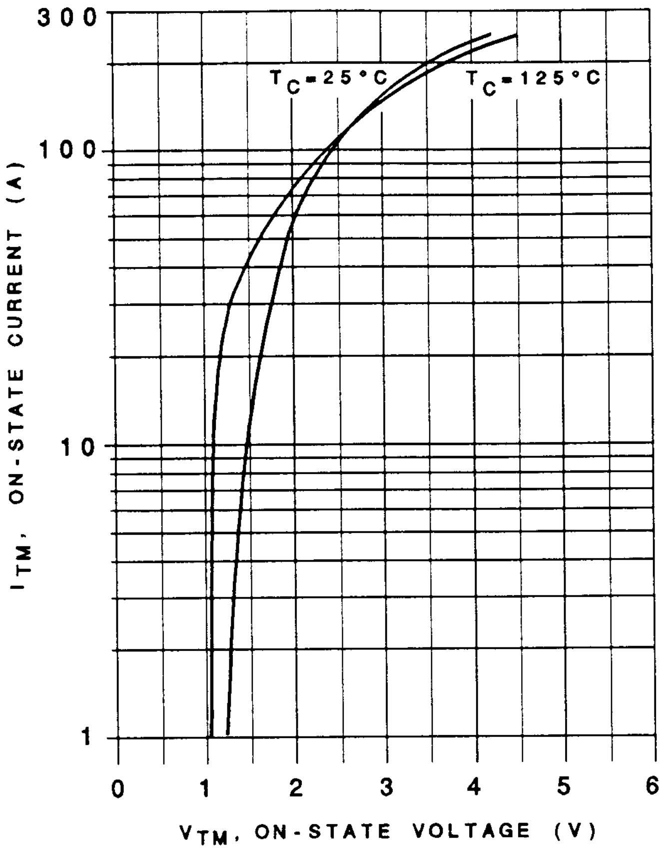
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}	Rated V_{DRM}			0.01	mA
I_{DRM}	Rated V_{DRM}, $T_C = 125°C$			6.00	mA
I_{GT}	$V_D = 12V$, $R_L = 33\Omega$, QUAD I,II,III			50	mA
I_{GT}	$V_D = 12V$, $R_L = 33\Omega$, QUAD IV			100	mA
I_H	$I_T = 500mA$			80	mA
V_{GT}	$V_D = 12V$, $R_L = 33\Omega$, QUAD I,II,III,IV			1.50	V
V_{TM}	$I_{TM} = 42A$, tp = 10ms			1.80	V
dv/dt	$V_D = \frac{2}{3} V_{DRM}$, $R_{GK} = \infty$, $T_C = 125°C$	250			V/μs

CQ3P-25B SERIES RATING AND CHARACTERISTIC CURVES

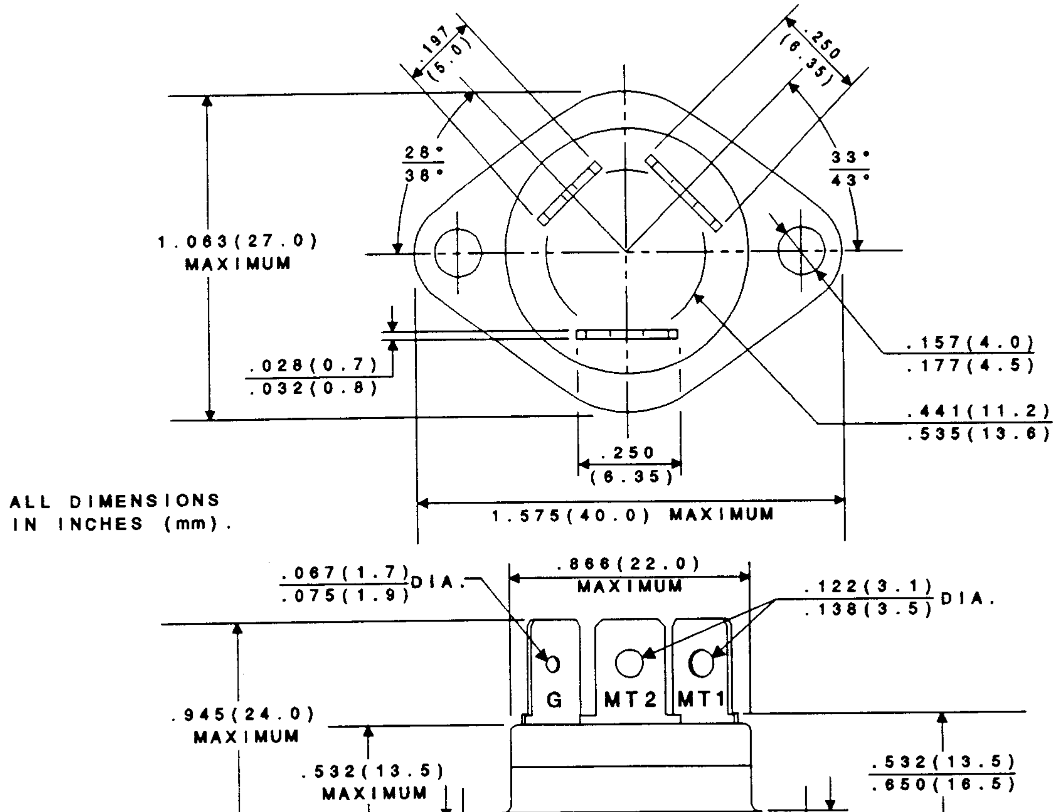
RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL OUTLINE



ALL DIMENSIONS
IN INCHES (mm).

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