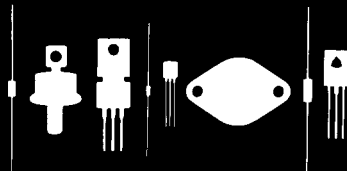


Central
Semiconductor Corp.

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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 $(T_C = 25^\circ\text{C}$ unless otherwise noted)

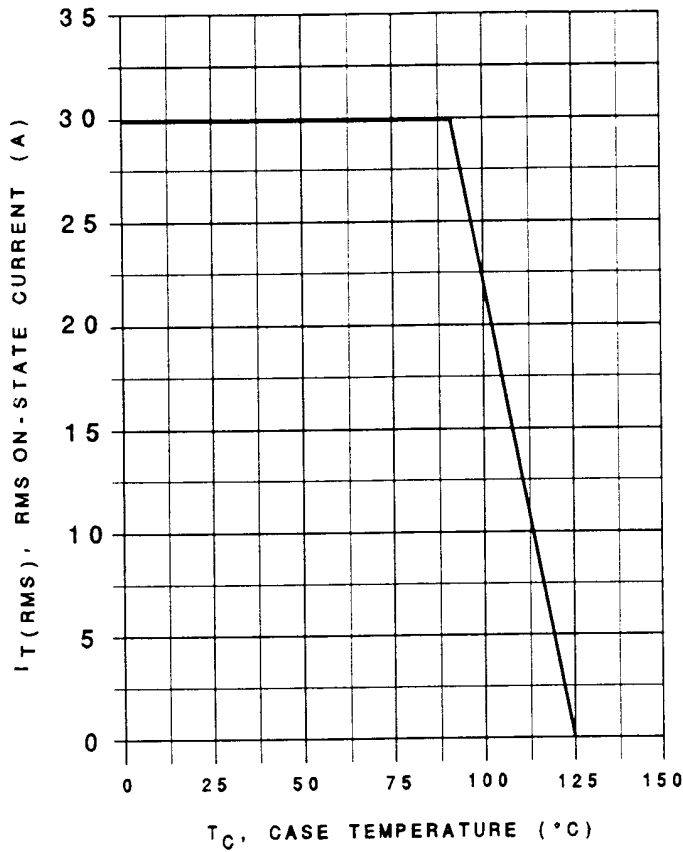
	SYMBOL	CQ3P -25B	CQ3P -25D	CQ3P -25M	CQ3P -25N	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}	200	400	600	800	V
RMS On-State Current ($T_C = 90^\circ\text{C}$)	$I_{\text{T(RMS)}}$			30		A
Peak One Cycle Surge ($t = 10\text{ms}$)	I_{TSM}			250		A
I^2t Value for Fusing ($t = 10\text{ms}$)	I^2t			312.5		A^2s
Peak Gate Power ($t_p = 10\mu\text{s}$)	P_{GM}			40		W
Average Gate Power Dissipation	$P_{\text{G(AV)}}$			1.0		W
Peak Gate Current ($t_p = 10\mu\text{s}$)	I_{GM}			10		A
Peak Gate Voltage ($t_p = 10\mu\text{s}$)	V_{GM}			16		V
Critical Rate of Rise of On-State Current						
Repetitive ($F = 50\text{Hz}$)	di/dt			10		$\text{A}/\mu\text{s}$
Storage Temperature	T_{stg}		-40 to +150			$^\circ\text{C}$
Junction Temperature	T_{J}		-40 to +125			$^\circ\text{C}$
Thermal Resistance	$\theta_{\text{J-C}}$		1.5			$^\circ\text{C}/\text{W}$
Isolation Voltage	V_{ISO}		2500			$V_{\text{(RMS)}}$

ELECTRICAL CHARACTERISTICS $(T_C = 25^\circ\text{C}$ unless otherwise noted)

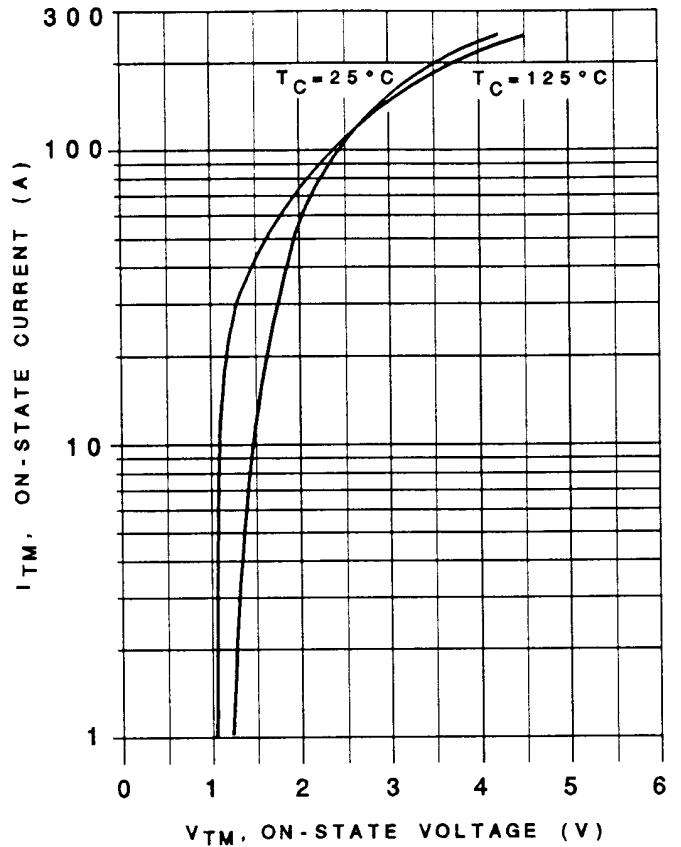
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}	Rated V_{DRM}			0.01	mA
I_{DRM}	Rated V_{DRM} , $T_C = 125^\circ\text{C}$			6.00	mA
I_{GT}	$V_{\text{D}} = 12\text{V}$, $R_{\text{L}} = 33\Omega$, QUAD I,II,III			50	mA
I_{GT}	$V_{\text{D}} = 12\text{V}$, $R_{\text{L}} = 33\Omega$, QUAD IV			100	mA
I_{H}	$I_{\text{T}} = 500\text{mA}$			80	mA
V_{GT}	$V_{\text{D}} = 12\text{V}$, $R_{\text{L}} = 33\Omega$, QUAD I,II,III,IV			1.50	V
V_{TM}	$I_{\text{TM}} = 42\text{A}$, $t_p = 10\text{ms}$			1.80	V
dv/dt	$V_{\text{D}} = \frac{2}{3}V_{\text{DRM}}$, $R_{\text{GK}} = \infty$, $T_C = 125^\circ\text{C}$	250			$\text{V}/\mu\text{s}$

CQ3P-25B SERIES RATING AND CHARACTERISTIC CURVES

RMS ON-STATE CURRENT vs. CASE TEMPERATURE



MAXIMUM ON-STATE CHARACTERISTICS



MECHANICAL OUTLINE

