

Dual Thyristor Modules

TYPE:MTC250A-1600V

Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precious metal pressure contacts for high reliability
- Thyristor with amplifying gate

Typical Applications

- DC motor control
- AC motor soft starters
- Temperature control
- Professional light dimming

Maximum Ratings

Symbol	Condition	Ratings	Unit
$I_{T(AV)}$	Single phase, half wave, 85° conduction	250	A
I_{TRMS}	Single phase, half wave, 35° conduction	566	A
I_{TSM}	$T_j=125^\circ\text{C}$	8000	A
I^2t	$T_j=125^\circ\text{C}$	320	kA^2S
V_{DRM}/V_{RRM}		1800/1800	V
di/dt	non-repetitive	250	A/us
V_{iso}	A.C.1minute	3000	V
T_j		-40 ~ +125	$^\circ\text{C}$
T_{stg}		-40 ~ +125	$^\circ\text{C}$
W		-	g

Electrical Characteristics

Symbol	Condition	Ratings	Unit
I_{DRM}/I_{RRM}	At V_{DRM} , Single phase, half wave, $T_j=125^\circ\text{C}$	85	mA
V_{TM}	On-State Current 750A, $T_j=25^\circ\text{C}$	1.4	V
$V_{T(TO)}$	$T_j=125^\circ\text{C}$	0.925	V
t_{gd}	$T_j=25^\circ\text{C}$	1	us
t_q	$T_j=125^\circ\text{C}$	50...150	us
I_{GT}/V_{GT}	$T_j=25^\circ\text{C}$	200 / 3	mA/V
V_{GD}	$V_D=67\%V_{DRM}$, $T_j=125^\circ\text{C}$	0.25	V
DV/DT	$V_D=67\%V_{DRM}$	1000	V/us
I_H	$T_j=25^\circ\text{C}$	150	mA
I_L	$T_j=25^\circ\text{C}$	300	mA
$R_{th(j-c)}$	Per Module	0.07	K/W

Outline Drawing

