

Dual Thyristor Modules

TYPE: MTC500A/3600V

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
- Temperature control
- Professional light dimming

Maximum Ratings

Symbol	Condition	Ratings	Unit
$I_{T(AV)}$	Single phase, half wave, 180° conduction ; $T_C=85^{\circ}C$	500	A
I_{TRMS}	Single phase, half wave, 180° conduction	750	A
I_{TSM}	$T_J=125^{\circ}C$	16	kA
I^2t	$T_J=125^{\circ}C$	1.25×10^3	kA^2S
V_{DRM}/V_{RRM}	$T_J=125^{\circ}C$	3600/3600	V
di/dt	non-repetitive	400	A/us
V_{iso}	A.C.1minute	4500	V
T_j		-40 ~ + 125	$^{\circ}C$
T_{stg}		-40 ~ + 125	$^{\circ}C$
W	About	2.1	Kg

Electrical Characteristics

Symbol	Condition	Ratings	Unit
I_{DRM}/I_{RRM}	At V_{DRM} , Single phase, half wave, $T_J=125^{\circ}C$	100	mA
V_{TM}	On-State Current 1500A, $T_J=125^{\circ}C$	2.4	V
$V_{T(TO)}$	$T_J=125^{\circ}C$	0.83	V
R_{K1G1}		-	Ω
R_{K2G2}		-	Ω
t_{gd}	$T_J=25^{\circ}C; V_D=0.4V_{DRM}; I_{TM}=I_{TAV}$	2.5	us
t_q	$dv_D/dt=50V/us; T_J=125^{\circ}C; I_{TM}=I_{TAV}$	320	us
I_{GT}/V_{GT}	$T_J=25^{\circ}C, I_T=1A, V_D=6V$	250 / 2.5	mA/V
V_{GD}	$V_D=67\%V_{DRM}$	0.25	V
DV/DT	$V_D=67\%V_{DRM}$	1000	V/us
I_H	$T_J=25^{\circ}C$	500	mA
I_L	$T_J=25^{\circ}C$	1000	mA
$R_{th(j-c)}$	Per Module	0.028	K/kW

Outline Drawing

