

Thyristor / Thyristor Modules

Page 1 of 2

YZPST-MTC1000A/1800V(WATER COOLED MODULE)

Maximum Ratings

Symbol	Condition	Ratings	Unit
$I_{T(AV)}$	Single phase, half wave, 180° conduction, $T_c=78^{\circ}\text{C}/85^{\circ}\text{C}$	1000/850	A
I_{TRMS}	Single phase, half wave, 180° conduction, $T_c=78^{\circ}\text{C}$	1256	A
I_{TSM}	$T_j=125^{\circ}\text{C}$	28	KA
I^2t	$T_j=125^{\circ}\text{C}$	5120	KA ² S
V_{DRM}/V_{RRM}		1800/1800	V
$(di/dt)_{cr}$	$T_j=125^{\circ}\text{C}$	400	A/us
V_{iso}	A.C.1minute	3000	V
T_j		-40 ~ + 125	°C
T_{stg}		-40 ~ + 130	°C
W		-	g

Electrical Characteristics

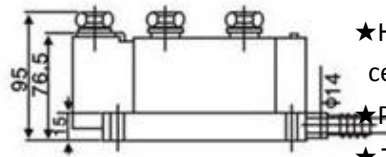
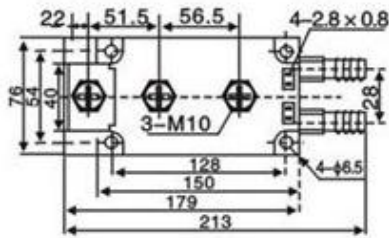
Symbol	Condition	Ratings	Unit
I_{DRM}	AtVDRM, Single phase, half wave, $T_j=125^{\circ}\text{C}$	100	mA
I_{RRM}	AtVRRM, Single phase, half wave, $T_j=125^{\circ}\text{C}$	100	mA
V_{TM}	On-State Current 2500A, $T_j=25^{\circ}\text{C}$	1.55	V
$V_{T(TO)}$	$T_j=125^{\circ}\text{C}$	0.85	V
R_{K1G1}		-	Ω
R_{K2G2}		-	Ω
t_{gd}	$T_j=25^{\circ}\text{C}; V_D=0.4V_{DRM}; I_{TM}=I_{TAV}$	2.0	us
t_q	$dv_D/dt=50V/us; T_j=125^{\circ}\text{C}; I_{TM}=I_{TAV}$	250	us
I_{GT}/V_{GT}	$T_j=25^{\circ}\text{C}$, $I_T=1A$, $V_D=6V$	250 / 2.5	mA/V
V_{GD}	$T_j=130^{\circ}\text{C}$ $V_D=1/2V_{DRM}$	0.25	V
DV/DT	$T_j=130^{\circ}\text{C}$, $V_D=2/3V_{DRM}$	1000	V/us
I_H	$T_j=25^{\circ}\text{C}$	300	mA
I_L	$T_j=25^{\circ}\text{C}$	1500	mA
$R_{th(j-c)}$	Per Module	0.025	°C/W

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Page 2 of 2

YZPST-MTC1000A/1600V(WATER COOLED MODULE)

Case Outline And Dimensions



Features

- ★ Heat transfer through aluminium nitrogen ceramic isolated metal baseplate
- ★ Precious metal pressure contacts
- ★ Thyristor with amplifying gate

Typical Applications

- ★ DC motor control(e.g. for machine tools)
- ★ AC motor soft starters
- ★ Temperature control(e.g. for ovens,chemical processes)
- ★ Professional light dimming(studios,theaters)