

Dual Thyristor Modules

TYPE: YZPST-SKKT107/16E

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, sin 180° conduction ; $T_C=85^\circ\text{C}$	119	A
I_{TRMS}	Single phase, half wave, sin 180° conduction	190	A
I_{TSM}	$T_j = T_{j\text{ MAX}}$	1.9	kA
I^2t	$T_j = T_{j\text{ MAX}}$	18.05	kA^2S
V_{DRM}/V_{RRM}	$T_j = T_{j\text{ MAX}}$	1600	V
di/dt	non-repetitive	140	A/us
V_{iso}	A.C.1minute/1S	3000/3600	V
T_j		-40 ~ + 130	$^\circ\text{C}$
T_{stg}		-40 ~ + 125	$^\circ\text{C}$
W	About	95	g

Electrical Characteristics

Symbol	Condition	Ratings	Unit
I_{DRM} / I_{RRM}	At V_{DRM} , Single phase, half wave, $T_j = T_{j\text{ MAX}}$	20	mA
V_{TM}	On-State Current 300A, $T_j = 25^\circ\text{C}$	1.75	V
$V_{T(TO)}$	$T_j = T_{j\text{ MAX}}$	0.9	V
r_T	$T_j = T_{j\text{ MAX}}$	3.35	$\text{m}\Omega$
R_{K1G1}		-	Ω
R_{K2G2}		-	Ω
t_{gd}	$T_j = 25^\circ\text{C}; V_D = 0.4V_{DRM}; I_{TM} = I_{TAV}$	1	us
t_q	$dv_D/dt = 50\text{V/us}; T_j = T_{j\text{ MAX}}; I_{TM} = I_{TAV}$	200	us
I_{GT}/V_{GT}	$T_j = 25^\circ\text{C}, I_T = 1\text{A}, V_D = 6\text{V}$	100 / 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	$T_j = 25^\circ\text{C}$	250	mA
I_L	$T_j = 25^\circ\text{C}$	600	mA
$R_{th(j-c)}$	Thermal resistance Junction to case; per module	0.19	K/W
$R_{th(c-h)}$	Thermal resistance case to heatsink; per module	0.2	K/W

