

Thyristor Diode Modules
TYPE: YZPST-SKKH106/16E
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 ; $T_C=85^{\circ}C$	106	A
I_{TRMS}	Single phase, half wave, sin 180° conduction	180	A
I_{TSM}	$T_j=25^{\circ}C$	2.25	kA
I^2t	$T_j=25^{\circ}C$	25	kA^2S
V_{DRM}/V_{RRM}	$T_j=T_{j\ MAX}$	1600	V
di/dt	non-repetitive	150	A/us
V_{iso}	A.C.1minute/1S	3000/3600	V
T_j		-40 ~ + 130	$^{\circ}C$
T_{stg}		-40 ~ + 125	$^{\circ}C$
W	About	95	g

Electrical Characteristics

Symbol	Condition	Ratings	Unit
I_{DRM} / I_{RRM}	At V_{DRM} , Single phase, half wave, $T_j=T_{j\ MAX}$	20	mA
V_{TM}	On-State Current 300A, $T_j=25^{\circ}C$	1.65	V
$V_{T(TO)}$	$T_j=T_{j\ MAX}$	0.9	V
r_T	$T_j=T_{j\ MAX}$	2.0	m Ω
R_{K1G1}		-	Ω
R_{K2G2}		-	Ω
t_{gd}	$T_j=25^{\circ}C; V_D=0.4V_{DRM}; I_{TM}=I_{TAV}$	1	us
t_q	$dv_D/dt=50V/us; T_j=T_{j\ MAX}; I_{TM}=I_{TAV}$	100	us
I_{GT}/V_{GT}	$T_j=25^{\circ}C, I_T=1A, V_D=6V$	150 / 3.0	mA/V
V_{GD}	$V_D=67\%V_{DRM}$	0.25	V
DV/DT	$V_D=67\%V_{DRM}$	1000	V/us
I_H	$T_j=25^{\circ}C$	250	mA
I_L	$T_j=25^{\circ}C$	600	mA
$R_{th(j-c)}$	Thermal resistance Junction to case; per module	0.28	K /W
$R_{th(c-h)}$	Thermal resistance case to heatsink; per module	0.2	K /W

