

# Dual Thyristor Modules

## Typical Applications

### Features

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

- DC motor control
- Temperature control
- Professional light dimming

### Maximum Ratings

Symbol	Condition	Ratings	Unit
$I_{T(AV)}$	Single phase, half wave, sin 180° conduction ; $T_C=85^{\circ}C$	116	A
$I_{TRMS}$	Single phase, half wave, sin 180° conduction	182	A
$I_{TSM}$	$T_j= 45^{\circ}C$	2.25	kA
$I^2t$	$T_j= 45^{\circ}C$	25.3	$kA^2S$
$V_{DRM}/V_{RRM}$	$T_j= T_{j MAX}$	1400	V
di/dt	non-repetitive	150	A/us
$V_{iso}$	A.C.1minute/1S	4000/4800	V
$T_j$		-40 ~ + 125	$^{\circ}C$
$T_{stg}$		-40 ~ + 125	$^{\circ}C$
W	About	81	g

### Electrical Characteristics

Symbol	Condition	Ratings	Unit
$I_{DRM} / I_{RRM}$	At $V_{DRM}$ , Single phase, half wave, $T_j= T_{j MAX}$	5	mA
$V_{TM}$	On-State Current 300A, $T_j=25^{\circ}C$	1.50	V
$V_{T(TO)}$	$T_j= T_{j MAX}$	0.85	V
$r_T$	$T_j= T_{j MAX}$	2.40	m $\Omega$
$R_{K1G1}$		-	$\Omega$
$R_{K2G2}$		-	$\Omega$
$t_{gd}$	$T_j=25^{\circ}C; V_D=0.4V_{DRM}; I_{TM}=I_{TAV}$	2	us
$t_q$	$dv_D/dt=50V/us; T_j= T_{j MAX}; I_{TM}=I_{TAV}$	185	us
$I_{GT}/V_{GT}$	$T_j=25^{\circ}C, I_T=1A, V_D=6V$	150 /2.5	mA/V
$V_{GD}$	$V_D=67\%V_{DRM}$	0.2	V
DV/DT	$V_D=67\%V_{DRM}$	1000	V/us
$I_H$	$T_j=25^{\circ}C$	200	mA
$I_L$	$T_j=25^{\circ}C$	450	mA
$R_{th(j-c)}$	Thermal resistance Junction to case; per module	0.22	K/W

$R_{th(c-h)}$	Thermal resistance case to heatsink; per module	0.20	K/W
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Outline Drawing

