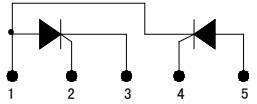
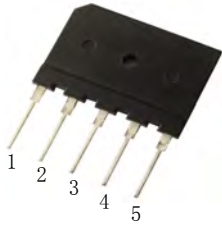


STT% G**P

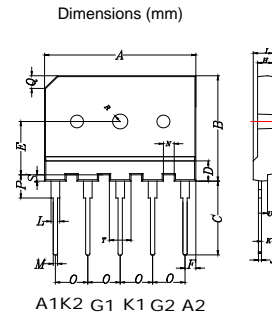
Thyristor-Thyristor Modules



A1K2 G1 K1 G2 A2

Type	V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V
STT% G08P	900	800
STT% G12P	1300	1200
STT% G14P	1500	1400
STT% G16P	1700	1600
STT% G18P	1900	1800

Dimensions in mm (1mm=0.0394")



(mm)	MIN	TYP	MAX
A	34.70	35.0	35.30
B	24.70	25.0	25.30
C	17.0	17.50	18.0
D	4.70	4.80	4.90
E	12.45	12.65	12.85
F	2.30	2.50	2.70
G	3.10	3.25	3.40
H	3.40	3.60	3.80
I	4.40	4.60	4.80
J	2.50	2.70	2.90
K	0.60	0.70	0.80
L	2.0	2.20	2.40
M	0.90	1.0	1.10
N	2.50	2.60	2.90
O	7.30	7.50	7.70
P	5.40	5.50	5.60
Q		(3, 0) × 45°	
R	±3.10	±3.25	±3.40
S	1.40	1.50	1.60
T	4.60	4.80	5.0
U	1.20	1.30	1.40

A1K2 G1 K1 G2 A2

Symbol	Test Conditions	Maximum Ratings	Unit	
I_{TRMS}, I_{FRMS} I_{TAVM}, I_{FAVM}	$T_{VJ}=T_{VJM}$ $T_C=85^{\circ}C; 180^{\circ}$ sine	25 16	A	
I_{TSM}, I_{FSM}	$T_{VJ}=45^{\circ}C$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	190 208	A	
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	170 187		
$\int i^2 dt$	$T_{VJ}=45^{\circ}C$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	200 190	A ² s	
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	160 152		
	$T_{VJ}=T_{VJM}$ $f=50Hz, t_p=200us$ $V_D=2/3V_{DRM}$ $I_G=0.45A$ $di_G/dt=0.45A/us$	repetitive, $I_T=16A$		150
		non repetitive, $I_T=I_{TAVM}$		500
$(dv/dt)_{cr}$	$T_{VJ}=T_{VJM};$ $R_{GK}=\infty;$ method 1 (linear voltage rise)	$V_{DR}=2/3V_{DRM}$ 1000	V/us	
P_{GM}	$T_{VJ}=T_{VJM}$ $I_T=I_{TAVM}$	$t_p=30us$ 10 $t_p=300us$ 5	W	
P_{GAV}		0.5	W	
V_{RGM}		10	V	
T_{VJ} T_{VJM} T_{stg}		-40...+125 125 -40...+125	$^{\circ}C$	
V_{ISOL}	50/60Hz, RMS $I_{ISOL} \leq 1mA$	$t=1min$ 2500 $t=1s$ 3000	V~	
M_d	Mounting torque (M3)	0.8-1.2/7-11	Nm/lb.in.	
Weight	Typical including screws	15	g	

Sirectifier®

STT% G**P

Thyristor-Thyristor Modules

Symbol	Test Conditions	Characteristic Values	Unit
I_{RRM}, I_{DRM}	$T_{VJ}=T_{VJM}; V_R=V_{RRM}; V_D=V_{DRM}$	1.5	mA
V_{TA}	$I_{TM}=50A; T_{VJ}=25^{\circ}C$	2.10	V
V_{TO}	For power-loss calculations only ($T_{VJ}=125^{\circ}C$)	0.95	V
r_T		40	$m\Omega$
V_{GT}	$V_D=6V;$ $T_{VJ}=25^{\circ}C$ $T_{VJ}=-40^{\circ}C$	1.0	V
		1.2	
I_{GT}	$V_D=6V;$ $T_{VJ}=25^{\circ}C$ $T_{VJ}=-40^{\circ}C$	80	mA
		100	
V_{GD}	$T_{VJ}=T_{VJM}; V_D=2/3V_{DRM}$	0.2	V
I_{GD}		10	mA
I_L	$T_{VJ}=25^{\circ}C; t_p=10\mu s; V_D=6V$ $I_G=0.45A; di_G/dt=0.45A/\mu s$	150	mA
I_H	$T_{VJ}=25^{\circ}C; V_D=6V; R_{GK}=\infty$	200	mA
t_{gd}	$T_{VJ}=25^{\circ}C; V_D=1/2V_{DRM}$ $I_G=0.45A; di_G/dt=0.45A/\mu s$	2	μs
t_q	$T_{VJ}=T_{VJM}; I_T=20A; t_p=200\mu s; -di/dt=10A/\mu s$ $V_R=100V; dv/dt=20V/\mu s; V_D=2/3V_{DRM}$	typ. 150	μs
Q_s	$T_{VJ}=T_{VJM}; I_T, I_F=25A; -di/dt=0.64A/\mu s$	50	μC
I_{RM}		6	A
R_{thJC}	per thyristor/diode; DC current per module	1.82	K/W
		0.91	
R_{thJK}	per thyristor/diode; DC current per module	2.08	K/W
		1.04	
d_s	Creeping distance on surface	12.7	mm
d_A	Strike distance through air	9.6	mm
a	Maximum allowable acceleration	50	m/s^2

FEATURES

- * Ideal for printed circuit board
- * Isolation voltage 3000 V~
- * Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- * RoHS Compliant

APPLICATIONS

- * DC motor control
- * Softstart AC motor controller
- * Light, heat and temperature control

ADVANTAGES

- * Space and weight savings
- * Simple mounting with single screws
- * Improved temperature and power cycling
- * Reduced protection circuits



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