

SM10(D,G)14

BI-DIRECTIONAL TRIODE THYRISTOR SILICON PLANAR TYPE

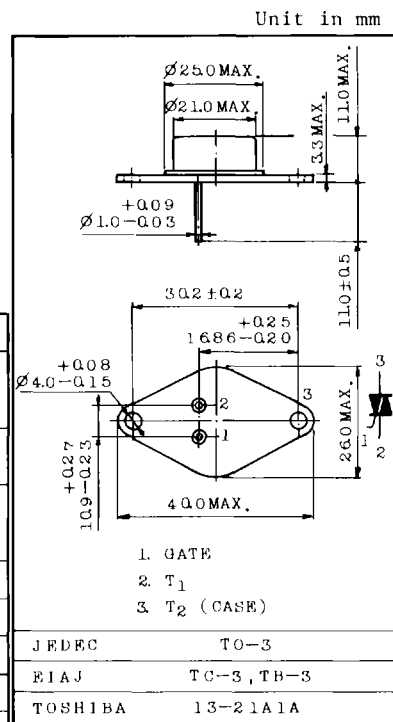
AC POWER CONTROL APPLICATIONS.

FEATURES:

- Repetitive Peak Off-State Voltage : $V_{DRM}=200\sim400V$
- R.M.S On-State Current : $I_T(RMS)=10A$
- Suitable for Heating Controls, Motor Controls, Dimmers and Power Switching System.

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage	SM10D14	200	V
	SM10G14	400	
R.M.S On-State Current (Full Sine Waveform $T_a=70^{\circ}C$)	$I_T(RMS)$	10	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	70(50Hz)	A
		77(60Hz)	
I^2t Limit Value ($t=1\sim10ms$)	I^2t	24.5	A^2s
Peak Gate Power Dissipation	P_{GM}	5	W
Average Gate Power Dissipation	$P_{G(AV)}$	0.5	W
Peak Gate Voltage	V_{GM}	12	V
Peak Gate Current	I_{GM}	2.5	A
Junction Temperature	T_j	$-25\sim100$	$^{\circ}C$
Storage Temperature Range	T_{stg}	$-25\sim125$	$^{\circ}C$



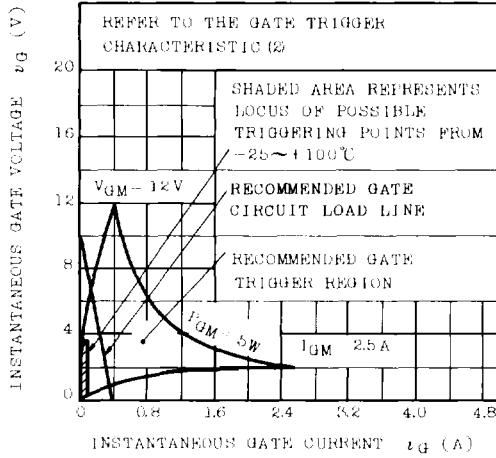
Mounting Kit No. AC6C

Weight : 12g

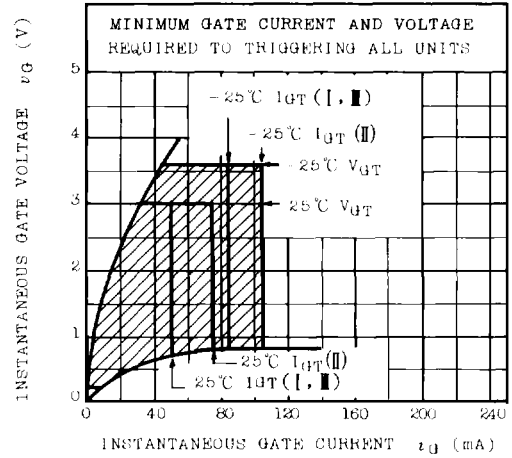
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Repetitive Peak Off-State Current	I_{DRM}	$V_{DRM}=\text{Rated}, T_j=100^{\circ}C$	-	1.5	mA
Gate Trigger Voltage	I	$V_D=12V$	-	3	V
	II			3	
	III			3	
Gate Trigger Current	I	$R_L=20\Omega$	-	50	mA
	II			75	
	III			50	
Peak On-State Voltage	V_{TM}	$I_{TM}=15A$	-	1.6	V
Gate Non-Trigger Voltage	V_{GD}	$V_D=\text{Rated}, T_c=100^{\circ}C$	0.2	-	V
Holding Current	I_H	$R_L=100\Omega$	-	50	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case, AC	-	2.0	$^{\circ}C/W$

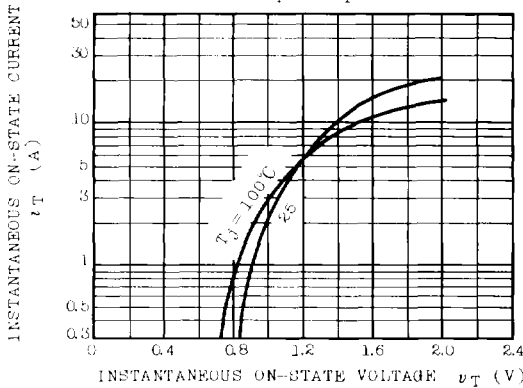
GATE TRIGGER CHARACTERISTIC (1)



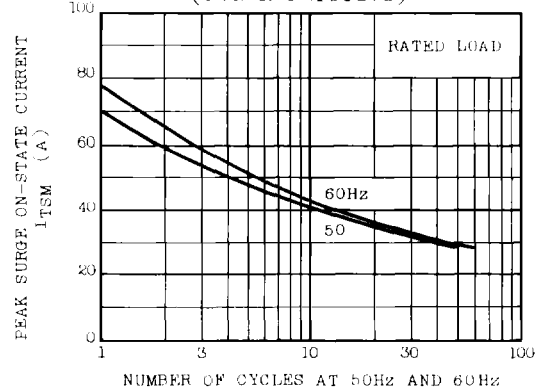
GATE TRIGGER CHARACTERISTIC (2)



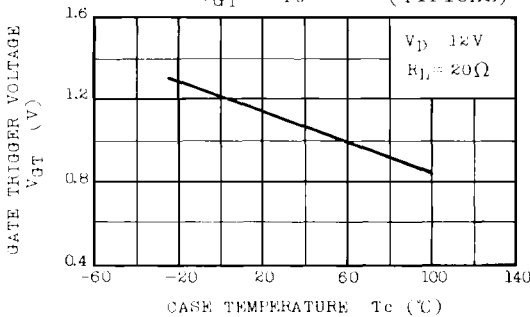
$i_T - v_T$



SURGE ON-STATE CURRENT (NON-REPETITIVE)



$V_{GT} - T_c$ (TYPICAL)



$I_{GT} - T_c$ (TYPICAL)

