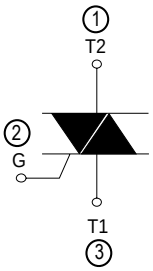
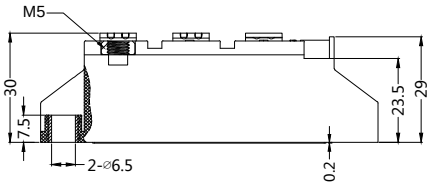
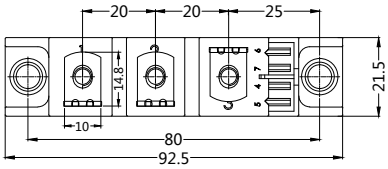
SBTA72G04 thru SBTA72G12

Triac Modules (Isolated)







Unit:mm

	V_{DRM} V	V_{DSM} V
SBTA72G04	400	450
SBTA72G06	600	650
SBTA72G10	1000	1100
SBTA72G12	1200	1300

Symbol	Test Conditions		Maximum Ratings	Unit
I_{TRMS}	T_{VJ}=58 °C		70	A
I_{TSM}	T_{VJ}=45°C V_R=0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	1080 1200	A
	T_{VJ}=T_{VJM} V_R=0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	750 800	
i^2t	T_{VJ}=45°C V_R=0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	6000 5500	A^2s
	T_{VJ}=T_{VJM} V_R=0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	4350 4000	
$(di/dt)_{cr}$	T_{VJ}=T_{VJM} f=50Hz, t_p=200us V_D=2/3V_{DRM} I_G=0.3A di_G/dt=0.3A/us	repetitive, I_T=40A non repetitive,I_T=I_{TAVM}	50 300	A/us
$(dv/dt)_{cr}$	T_{VJ}=T_{VJM}; R_{GK}=∞; method 1 (linear voltage rise)	V_{DR}=2/3V_{DRM}	500	V/us
P_{GM}	T_{VJ}=T_{VJM} I_T=I_{TAVM}	t_p=30us t_p=300us	10 5	W
P_{GAV}			1	W
V_{RGM}			10	V
T_{VJ} T_{VJM} T_{stg}			-40...+125 125 -40...+125	°C
V_{ISOL}	50/60Hz, RMS t=1minute,leads-to-tab		2500	V~
M_d	Mounting torque (M5) Terminal connection torque (M5)		2.5-4/22-35 2.5-4/22-35	Nm/lb.in.
Weight			75	g

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SBTA72G04 thru SBTA72G12

Triac Modules (Isolated)

Symbol	Test Conditions	Characteristic Values	Unit
I_R, I_D	$T_{VJ}=T_{VJM}$; $V_D=V_{DRM}$	10	mA
V_{TM}	I_T=70A; T_{VJ}=25°C	1.55	V
V_{TO}	For power-loss calculations only (T_{VJ}=125°C)	0.85	V
r_T		11	mΩ
V_{GT}	I	1.3	V
	II	1.3	
	III	1.3	
	IV	1.5	
	V_D=6V; I_T=1A;T_{VJ}=25°C		
I_{GT}	I	50	mA
	II	50	
	III	50	
	IV	100	
	V_D=6V; I_T=1A;T_{VJ}=25°C		
V_{GD}	$T_{VJ}=T_{VJM}$; V_D=2/3V_{DRM}	0.2	V
I_{GD}		10	mA
I_H	T_{VJ}=25°C; V_D=6V; R_{GK}=∞	100	mA
R_{thJC}	DC current	1.0	K/W
R_{thJk}	DC current	1.2	K/W
a	Max.acceleration, 50Hz	50	m/s^2

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SBTA72G04 thru SBTA72G12

Triac Modules (Isolated)

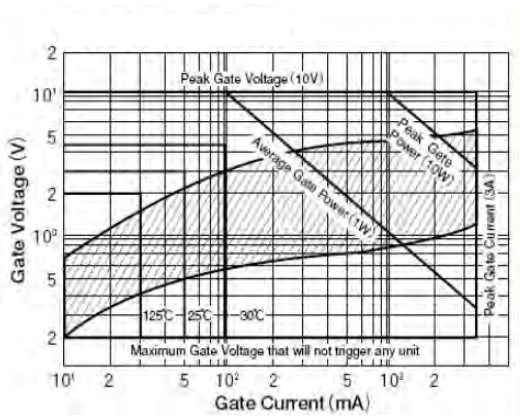

Fig.1 Gate Characteristics

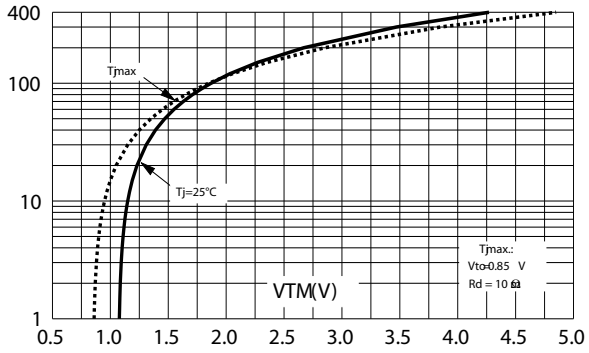

Fig.2 On-state characteristics

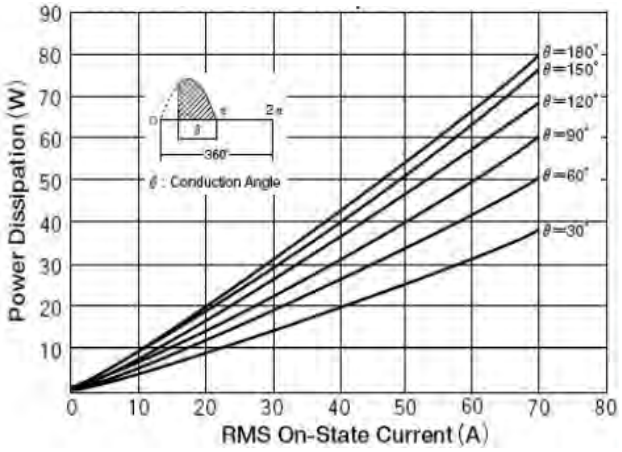

Fig. 3 On-state Current vs.Maximum Power Dissipation

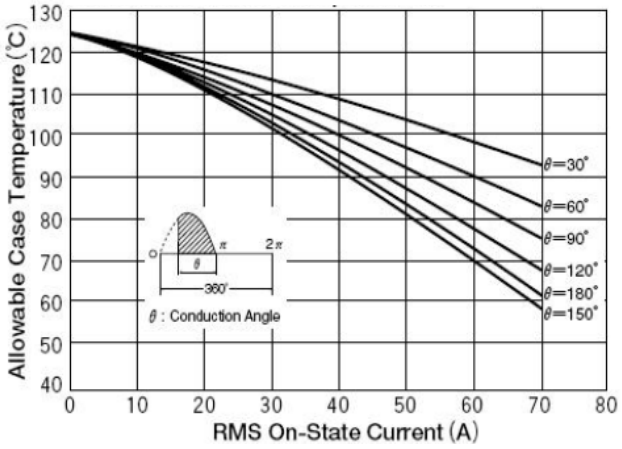

Fig.4 On-state Current vs.Allowable Case Temperature

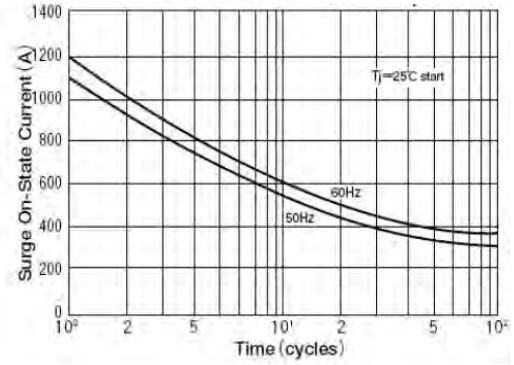

Fig. 5 Surge On-state Current Rating(Non-Repetitive)

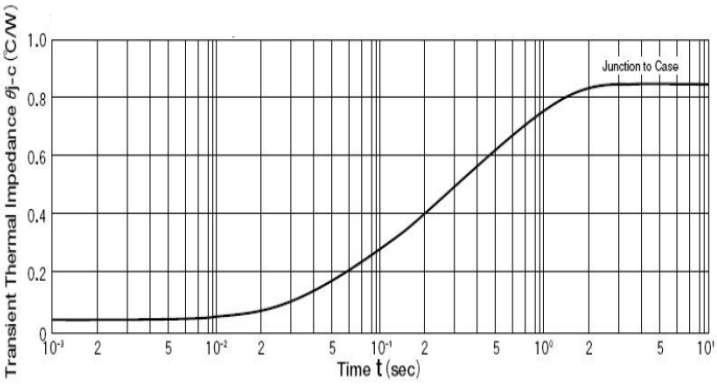

Fig. 6 Transient Thermal Impedance

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