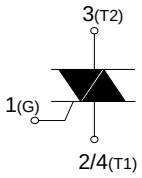
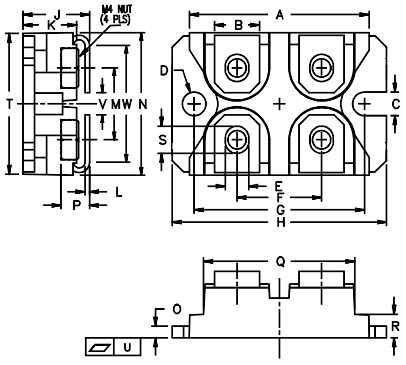
SBTA71G04S thru SBTA71G12S

Single Triac Module (Isolated)



	V_{DRM}	V_{DSM}
	V	V
SBTA71G04S	400	450
SBTA71G06S	600	650
SBTA71G10S	1000	1100
SBTA71G12S	1200	1300

Dimensions SOT-227(ISOTOP)



Dim.	Millimeter Min.	Millimeter Max.	Inches Min.	Inches Max.
A	31.50	31.88	1.240	1.255
B	7.80	8.20	0.307	0.323
C	4.09	4.29	0.161	0.169
D	4.09	4.29	0.161	0.169
E	4.09	4.29	0.161	0.169
F	14.91	15.11	0.587	0.595
G	30.12	30.30	1.186	1.193
H	37.80	38.20	1.489	1.505
J	11.68	12.22	0.460	0.481
K	8.92	9.60	0.351	0.378
L	0.76	0.84	0.030	0.033
M	12.60	12.85	0.496	0.506
N	25.15	25.42	0.990	1.001
O	1.98	2.13	0.078	0.084
P	4.95	5.97	0.195	0.235
Q	26.54	26.90	1.045	1.059
R	3.94	4.42	0.155	0.174
S	4.72	4.85	0.186	0.191
T	24.59	25.07	0.968	0.987
U	-0.05	0.1	-0.002	0.004
V	3.30	4.57	0.130	0.180
W	0.780	0.830	19.81	21.08

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 (M4)		1.1...1.5	Nm
Weight			30	g

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SBTA71G04S thru SBTA71G12S

Single Triac Module (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=100A; 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	0.2	K/W
R_{thJH}	DC current	0.1	K/W
a	Max. acceleration, 50 Hz	50	m/s^2

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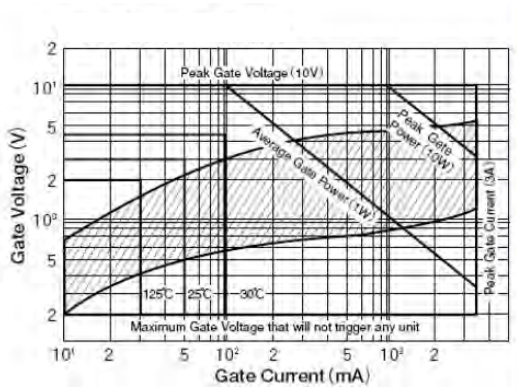

Fig. 1 Gate Characteristics

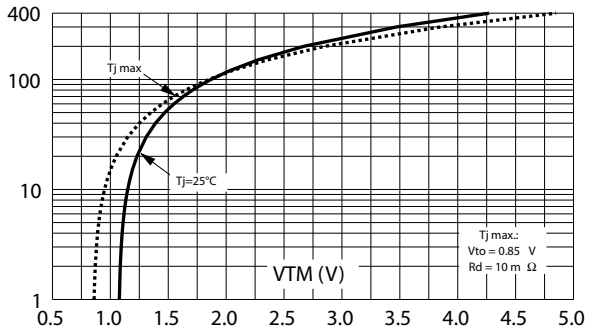

Fig. 2 On-state characteristics

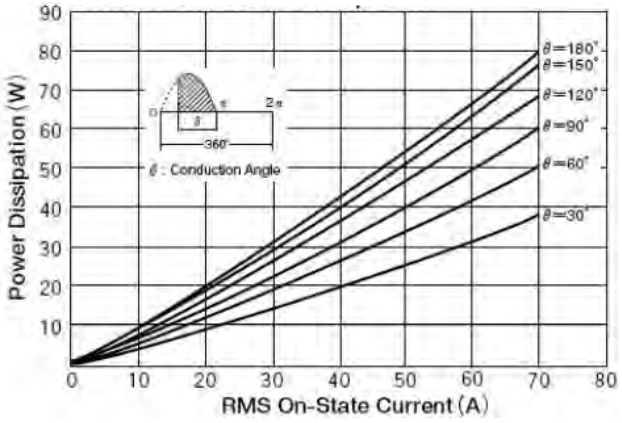

Fig. 3 On-state Current vs.Maximum Power Dissipation

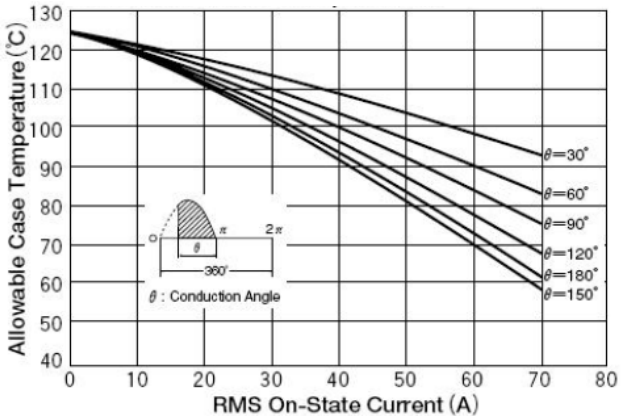

Fig. 4 On-state Current vs.Allowable Case Temperature

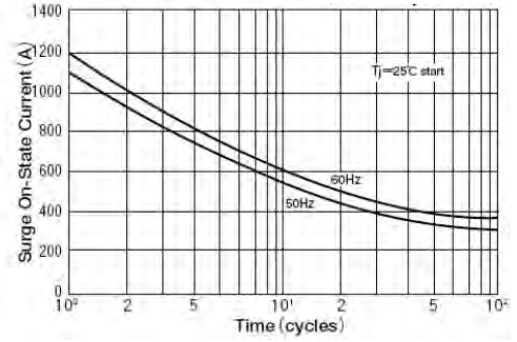

Fig. 5 Surge On-state Current Rating(Non-Repetitive)

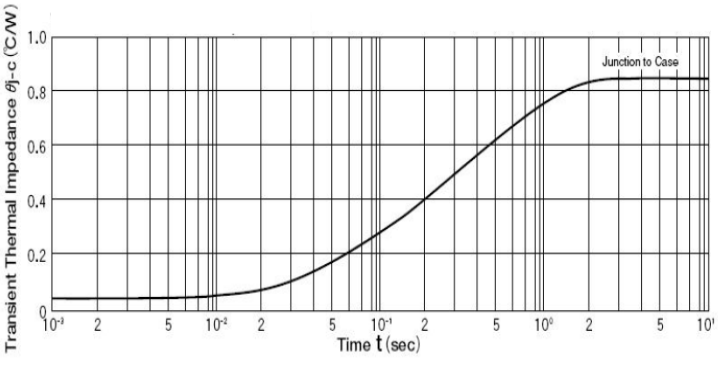

Fig. 6 Transient Thermal Impedance

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