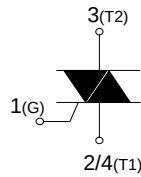
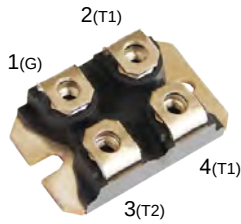
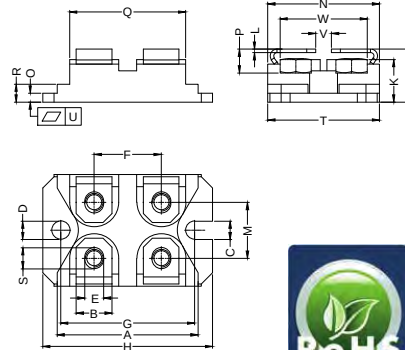


SBTA71GK04S thru SBTA71GK12S

Single Triac Module (Isolated)



Dimensions SOT-227(mm)



Dim.	Millimeter		Dim.	Millimeter	
	Min.	Max.		Min.	Max.
A	31.30	31.62	M	12.20	14.00
B	7.80	8.20	N	25.15	25.62
C	4.09	4.29	O	1.98	2.13
D	4.09	4.29	P	4.15	4.62
E	4.09	4.29	Q	25.90	26.30
F	14.91	15.11	R	3.94	4.42
G	30.12	30.30	S	4.45	4.85
H	38.20	38.56	T	24.59	25.07
J	12.30	12.90	U	0.05	0.10
K	8.92	9.60	V	3.00	4.80
L	0.76	0.84	W	19.81	21.08

	V _{DRM} V	V _{DSM} V
SBTA71GK04S	400	450
SBTA71GK06S	600	650
SBTA71GK10S	1000	1100
SBTA71GK12S	1200	1300

Symbol	Test Conditions		Maximum Ratings	Unit
I _{TRMS}	T _{VJ} =58 °C		70	A
I _{TSM}	T _{VJ} =45°C	t=10ms (50Hz), sine	1080	A
	V _R =0	t=8.3ms (60Hz), sine	1200	
	T _{VJ} =T _{VJM}	t=10ms(50Hz), sine	750	
	V _R =0	t=8.3ms(60Hz), sine	800	
i ² t	T _{VJ} =45°C	t=10ms (50Hz), sine	6000	A ² s
	V _R =0	t=8.3ms (60Hz), sine	5500	
	T _{VJ} =T _{VJM}	t=10ms(50Hz), sine	4350	
	V _R =0	t=8.3ms(60Hz), sine	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	50	A/us
		non repetitive, I _T =I _{TAVM}	300	
(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

SBTA71GK04S thru SBTA71GK12S

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}	$I_T=70A; T_{VJ}=25^{\circ}C$		1.55	V
V_{TO}	For power-loss calculations only ($T_{VJ}=125^{\circ}C$)		0.85	V
r_T			11	m Ω
V_{GT}	I	$V_D=6V; I_T=1A; T_{VJ}=25^{\circ}C$	1.3	V
	II		1.3	
	III		1.3	
	IV		1.5	
I_{GT}	I	$V_D=6V; I_T=1A; T_{VJ}=25^{\circ}C$	50	mA
	II		50	
	III		50	
	IV		100	
V_{GD}	$T_{VJ}=T_{VJM};$	$V_D=2/3V_{DRM}$	0.2	V
I_{GD}			10	mA
I_H	$T_{VJ}=25^{\circ}C; V_D=6V; R_{GK}=\infty$		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

Sirectifier®

SBTA71GK04S thru SBTA71GK12S

Single Triac Module (Isolated)

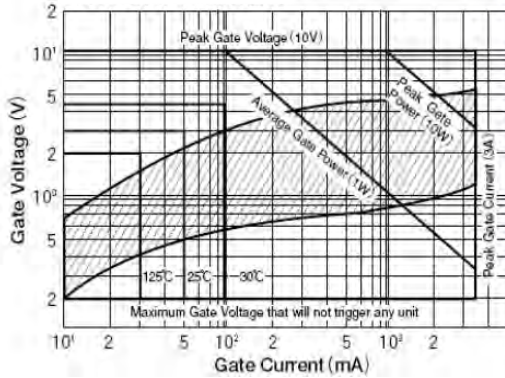


Fig. 1 Gate Characteristics

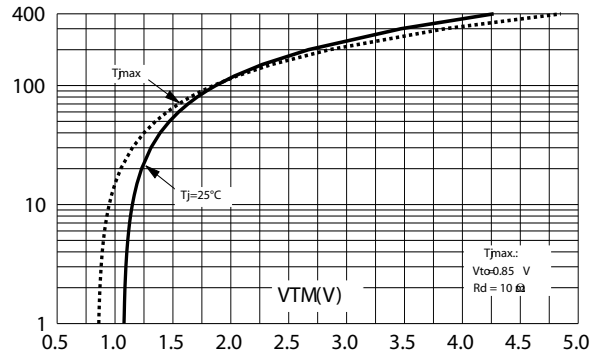


Fig. 2 On-state characteristics

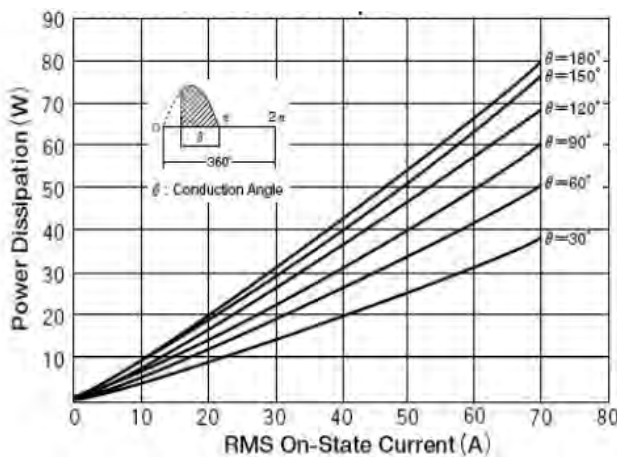


Fig. 3 On-state Current vs. Maximum Power Dissipation

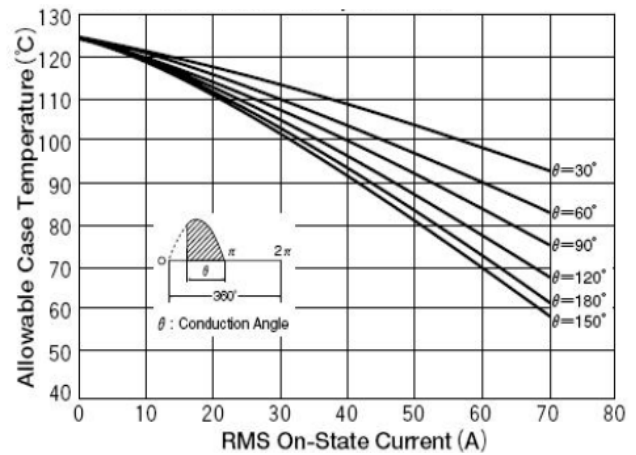


Fig. 4 On-state Current vs. Allowable Case Temperature

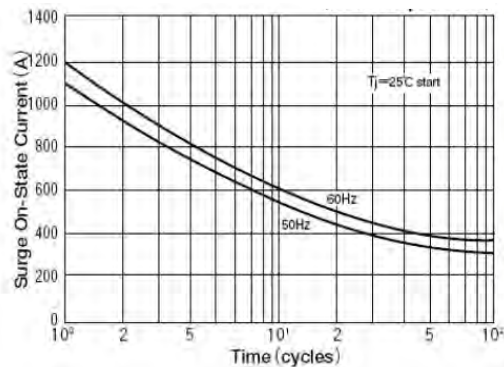


Fig. 5 Surge On-state Current Rating (Non-Repetitive)

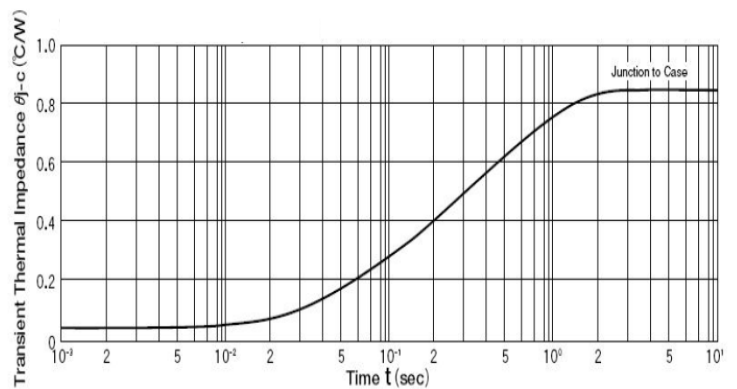


Fig. 6 Transient Thermal Impedance

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