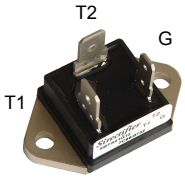
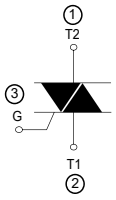
SBTA41G04B thru SBTA41G16B

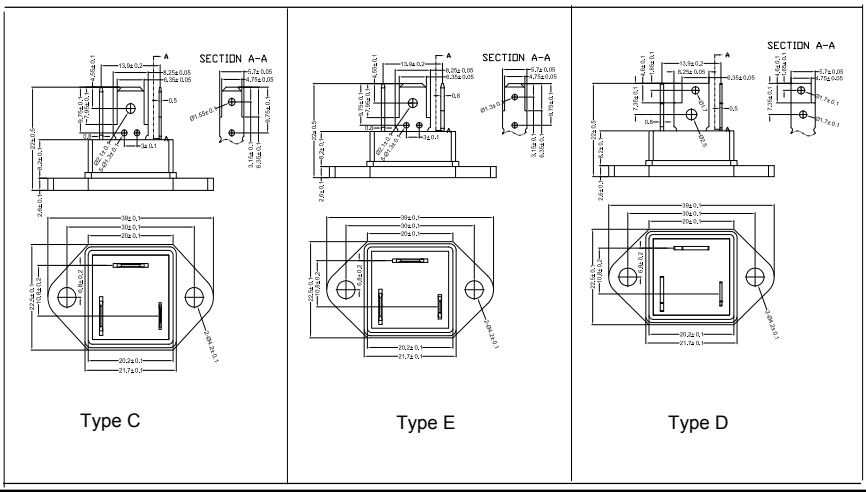
Discrete Triacs (Isolated)





	VDRM/RRM	VDSM/RSM
	V	V
SBTA41G04B	400	500
SBTA41G06B	600	700
SBTA41G08B	800	900
SBTA41G10B	1000	1100
SBTA41G12B	1200	1300
SBTA41G16B	1600	1700

Unit:mm



Type C　　Type E　　Type D

Symbol	Test Conditions		Maximum Ratings	Unit
I_{TRMS}	T_{VJ}=80 °C		40	A
I_{TSM}	T_{VJ}=45°C V_R=0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	420 400	A
	T_{VJ}=T_{VJM} V_R=0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	350 320	
I^2t	T_{VJ}=45°C V_R=0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	880 850	A^2s
	T_{VJ}=T_{VJM} V_R=0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	760 720	
$(di/dt)_{cr}$	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)		0.8...1.5	Nm
Weight			25	g

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SBTA41G04B thru SBTA41G16B

Discrete Triacs (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=60A; T_{VJ}=25°C	1.44	V
V_{TO}	For power-loss calculations only (T_{VJ}=125°C)	0.85	V
r_T		10	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	1.3	K/W
R_{thJH}	DC current	1.5	K/W
a	Max. acceleration, 50 Hz	50	m/s^2

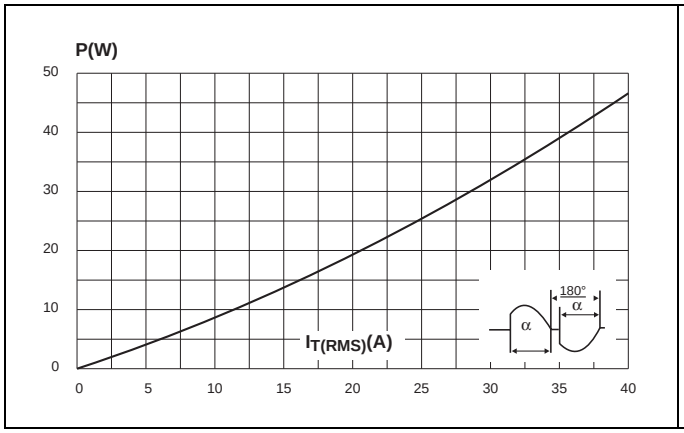

Fig.1 Maximum power dissipation versus on-state rms current (full cycle)

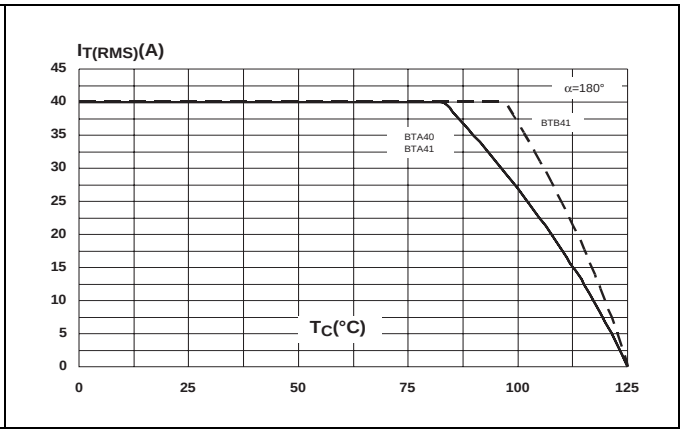

Fig.2 On-state rms current versus case temperature (full cycle)

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SBTA41G04B thru SBTA41G16B

Discrete Triacs (Isolated)

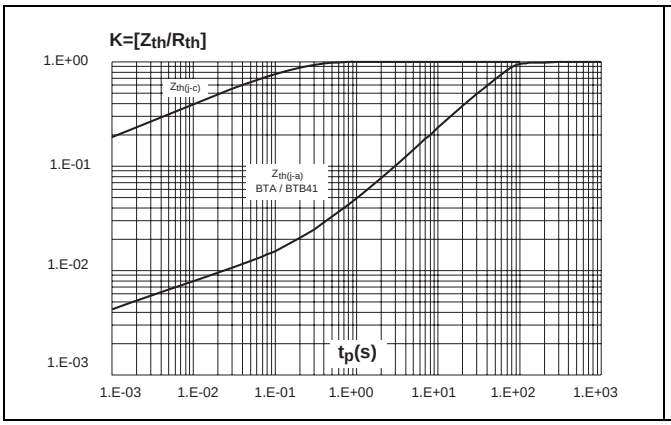

Fig.3 Relative variation of thermal impedance versus pulse duration

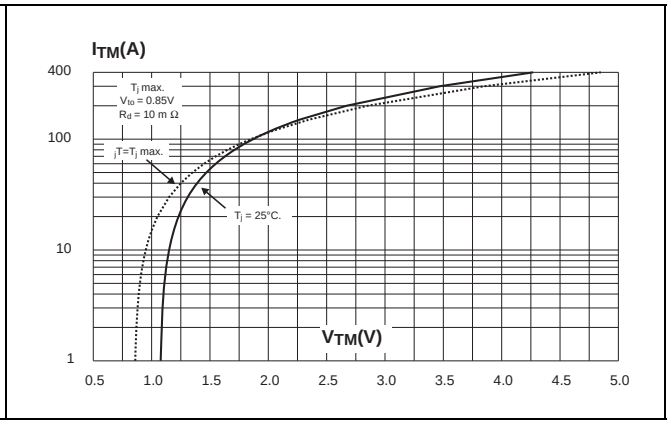

Fig.4 On-state characteristics (maximum values)

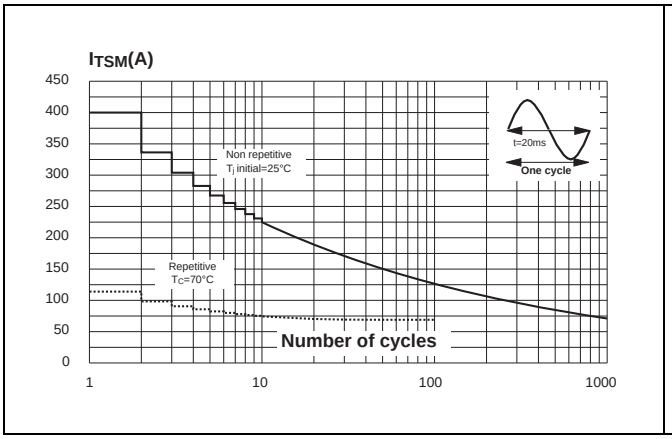

Fig.5 Surge peak on-state current versus number of cycles

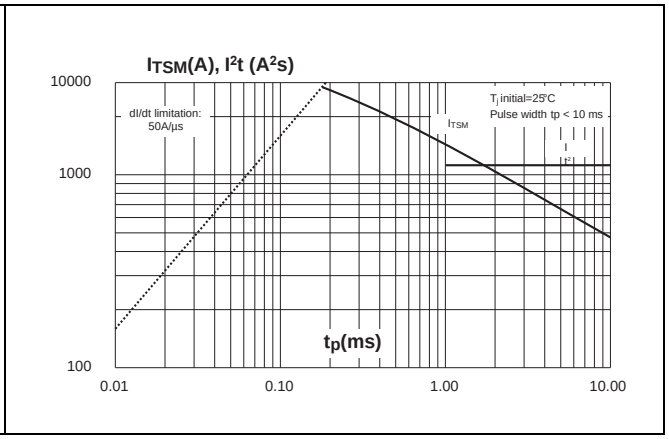

Fig.6 Non-repetitive surge peak on-state current for a sinusoidal pulse and corresponding value of I²t

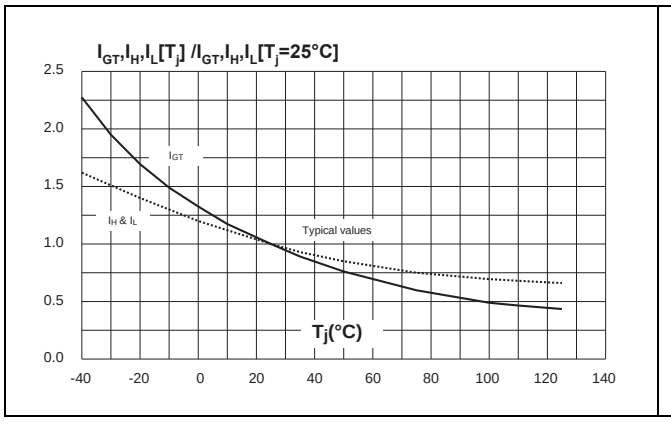

Fig.7 Relative variation of gate trigger,holding and latching current versus junction temperature

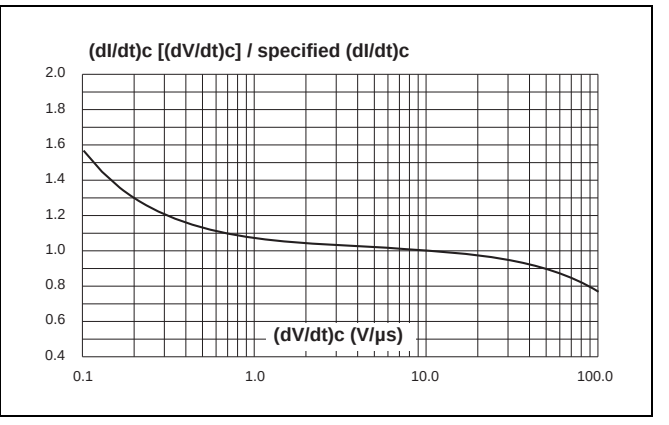

Fig.8 Relative variation of critical rate of decrease of main current versus (dV/dt)c (typical values)

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