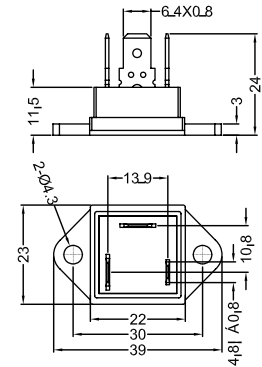
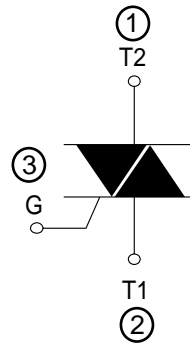
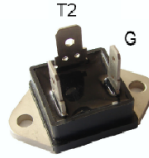


# SBTA35G04B thru SBTA35G16B

## Discrete Triacs (Isolated)

Unit:mm

	V <sub>DRM/RRM</sub> V	V <sub>DSM/RSM</sub> V
SBTA35G04B	400	450
SBTA35G06B	600	650
SBTA35G10B	1000	1100
SBTA35G12B	1200	1300
SBTA35G16B	1600	1700



Symbol	Test Conditions	Maximum Ratings	Unit	
I <sub>RMS</sub>	T <sub>VJ</sub> =80 °C	35	A	
I <sub>TSM</sub>	T <sub>VJ</sub> =45°C V <sub>R</sub> =0 t=10ms (50Hz), sine t=8.3ms (60Hz), sine	390 350	A	
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0 t=10ms(50Hz), sine t=8.3ms(60Hz), sine	330 290		
i <sup>2</sup> t	T <sub>VJ</sub> =45°C V <sub>R</sub> =0 t=10ms (50Hz), sine t=8.3ms (60Hz), sine	850 800	A <sup>2</sup> s	
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0 t=10ms(50Hz), sine t=8.3ms(60Hz), sine	720 380		
(di/dt) <sub>cr</sub>	T <sub>VJ</sub> =T <sub>VJM</sub> f=50Hz, t <sub>p</sub> =200us V <sub>D</sub> =2/3V <sub>DRM</sub> I <sub>G</sub> =0.3A dig/dt=0.3A/us	repetitive, I <sub>T</sub> =40A  non repetitive, I <sub>T</sub> =I <sub>TAVM</sub>	50  300	A/us
	(dv/dt) <sub>cr</sub>	T <sub>VJ</sub> =T <sub>VJM</sub> ; R <sub>GK</sub> =∞; method 1 (linear voltage rise)	V <sub>DR</sub> =2/3V <sub>DRM</sub>  500	
P <sub>GM</sub>	T <sub>VJ</sub> =T <sub>VJM</sub> I <sub>T</sub> =I <sub>TAVM</sub>	t <sub>p</sub> =30us t <sub>p</sub> =300us	10 5	W
P <sub>GA V</sub>			1	W
V <sub>RGM</sub>			10	V
T <sub>VJ</sub> T <sub>VJM</sub> T <sub>stg</sub>			-40...+125 125 -40...+125	°C
V <sub>ISOL</sub>	50/60Hz, RMS t=1minute, leads-to-tab		2500	V~
M <sub>d</sub>	Mounting torque (M4)		0.8...1.5	Nm
W eight			25	g



# SBTA35G04B thru SBTA35G16B

## Discrete Triacs(Isolated)

Symbol	Test Conditions	Characteristic Values	Unit
<b>I<sub>R</sub>, I<sub>D</sub></b>	$T_{VJ}=T_{VJM}; V_D=V_{DRM}$	10	mA
<b>V<sub>TM</sub></b>	$I_T=50A; T_{VJ}=25^{\circ}C$	1.45	V
<b>V<sub>TO</sub></b>	For power-loss calculations only ( $T_{VJ}=125^{\circ}C$ )	0.85	V
<b>r<sub>T</sub></b>		9	m $\Omega$
<b>V<sub>GT</sub></b>	I II III IV $V_D=6V; I_T=1A; T_{VJ}=25^{\circ}C$	1.3	V
		1.3	
		1.3	
		1.5	
<b>I<sub>GT</sub></b>	I II III IV $V_D=6V; I_T=1A; T_{VJ}=25^{\circ}C$	50	mA
		50	
		50	
		100	
<b>V<sub>GD</sub></b>	$T_{VJ}=T_{VJM}; V_D=2/3V_{DRM}$	0.2	V
<b>I<sub>GD</sub></b>		10	mA
<b>I<sub>H</sub></b>	$T_{VJ}=25^{\circ}C; V_D=6V; R_{GK}=\infty$	100	mA
<b>R<sub>thJC</sub></b>	DC current	1.4	K/W
<b>R<sub>thJH</sub></b>	DC current	1.6	K/W
<b>a</b>	Max. acceleration, 50 Hz	50	m/s <sup>2</sup>

**Sirectifier**<sup>®</sup>

# SBTA35G04B thru SBTA35G16B

## Discrete Triacs (Isolated)

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

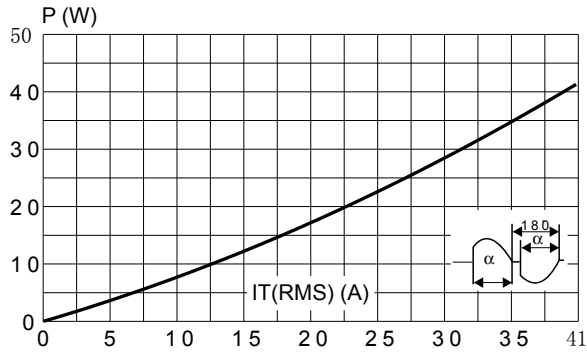


Fig. 3: Relative variation of thermal impedance versus pulse duration.

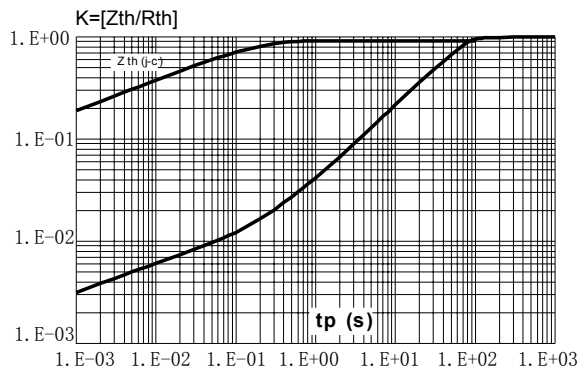


Fig. 5: Surge peak on-state current versus number of cycles.

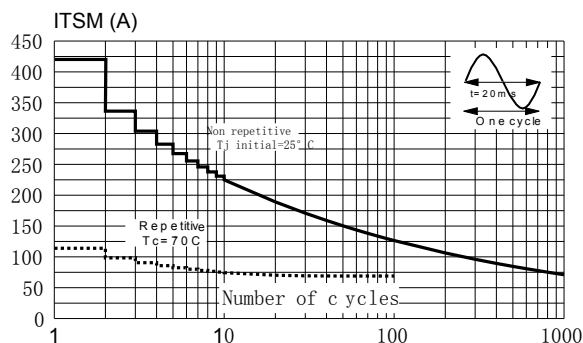


Fig. 2: RMS on-state current versus case temperature (full cycle).

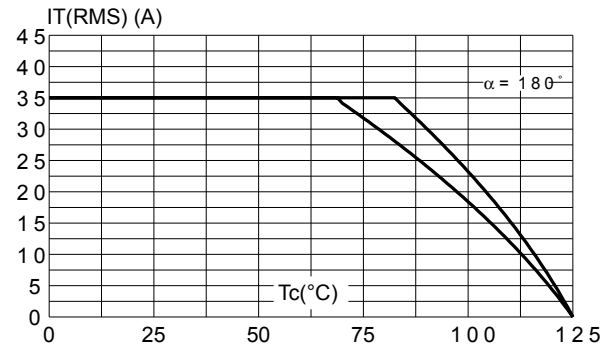


Fig. 4: On-state characteristics (maximum values).

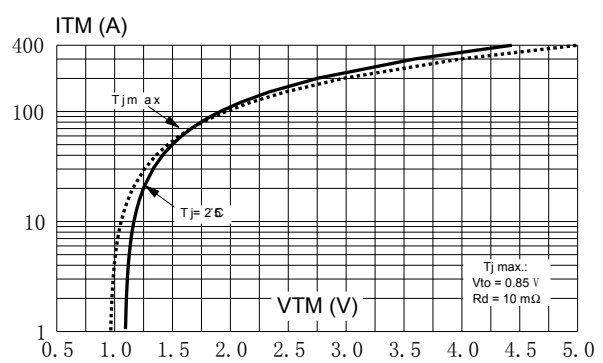
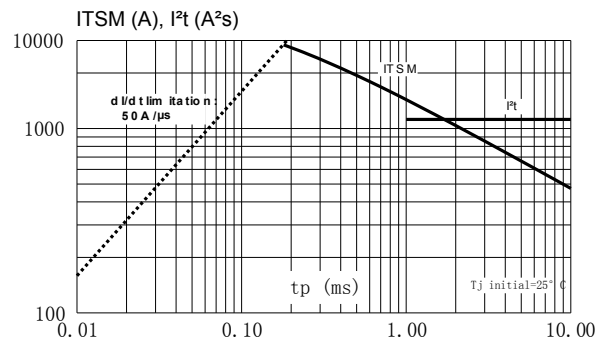


Fig. 6: Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 10$  ms, and corresponding value of  $I^2t$ .



# SBTA35G04B thru SBTA35G16B

## Discrete Triacs (Isolated)

Fig. 7: Relative variation of gate trigger current, holding current and latching current versus junction temperature (typical values).

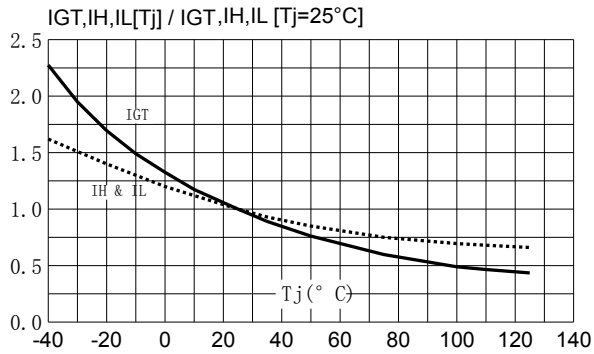


Fig. 8: Relative variation of critical rate of decrease of main current versus (dV/dt)<sub>c</sub> (typical values).

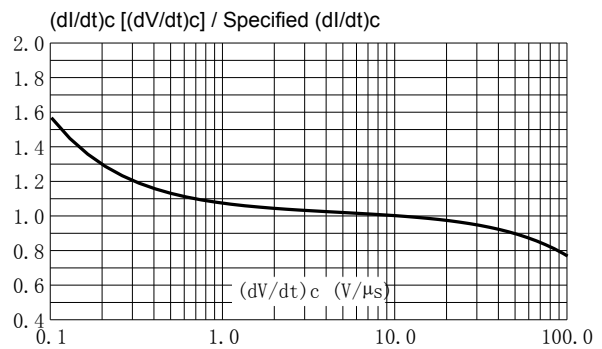


Fig. 9: Relative variation of critical rate of decrease of main current versus junction temperature.

