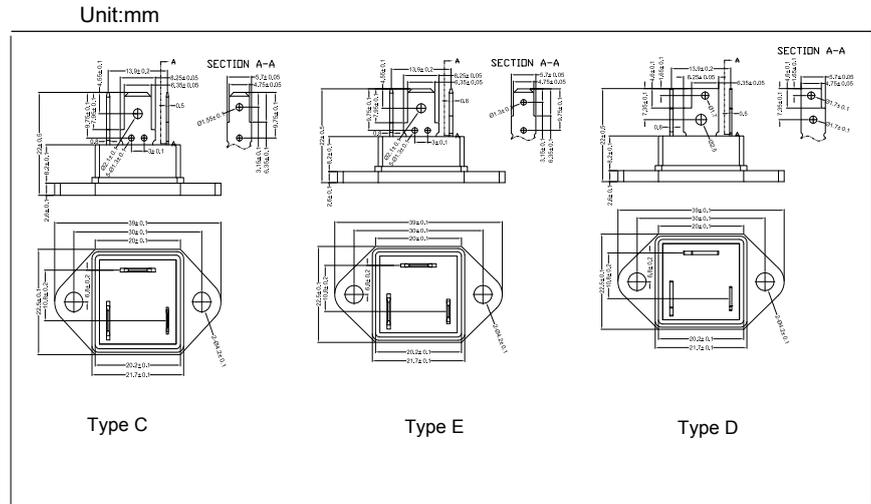


SBTA35G04B thru SBTA35G16B

Discrete Triacs (Isolated)



	VDRM/RRM	VDSM/RSM
	V	V
SBTA35G04B	400	500
SBTA35G06B	600	700
SBTA35G08B	800	900
SBTA35G10B	1000	1100
SBTA35G12B	1200	1300
SBTA35G16B	1600	1700

Symbol	Test Conditions	Maximum Ratings	Unit	
I_{TRMS}	$T_{VJ}=80^{\circ}C$	35	A	
I_{TSM}	$T_{VJ}=45^{\circ}C$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	330 310	A	
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	275 259		
I^2t	$T_{VJ}=45^{\circ}C$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	580 550	A^2s	
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	475 450		
$(di/dt)_{cr}$	$T_{VJ}=T_{VJM}$ $f=50Hz$, $t_p=200\mu s$ $V_D=2/3V_{DRM}$ $I_G=0.3A$ $di_G/dt=0.3A/\mu s$	repetitive, $I_T=35A$ non repetitive, $I_T=I_{TAVM}$	50 300	A/ μs
	$(dv/dt)_{cr}$	$T_{VJ}=T_{VJM}$; $R_{GK}=\infty$; method 1 (linear voltage rise)	$V_{DR}=2/3V_{DRM}$	
P_{GM}	$T_{VJ}=T_{VJM}$ $I_T=I_{TAVM}$	$t_p=30\mu s$ $t_p=300\mu s$	10 5	W
P_{GAV}			1	W
V_{RGM}			10	V
T_{VJ} T_{VJM} T_{stg}			-40...+125 125 -40...+125	$^{\circ}C$
V_{ISOL}	50/60Hz, RMS $t=1$ minute, leads-to-tab		2500	V~
M_d	Mounting torque (M4)		0.8...1.5	Nm
Weight			25	g



SBTA35G04B thru SBTA35G16B

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}	$I_T=49A; T_{VJ}=25^{\circ}C$	1.44	V	
V_{TO}	For power-loss calculations only ($T_{VJ}=125^{\circ}C$)	0.88	V	
r_T		11	m Ω	
V_{GT}	$V_D=6V; I_T=1A; T_{VJ}=25^{\circ}C$	I	1.3	V
		II	1.3	
		III	1.3	
		IV	1.5	
I_{GT}	$V_D=6V; I_T=1A; T_{VJ}=25^{\circ}C$	I	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	1.3	K/W	
R_{thJH}	DC current	1.5	K/W	
a	Max. acceleration, 50 Hz	50	m/s ²	

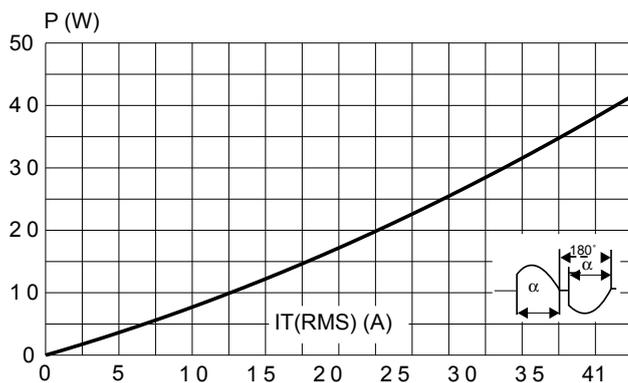


Fig. 1: Maximum power dissipation versus RMS on-state current (full cycle).

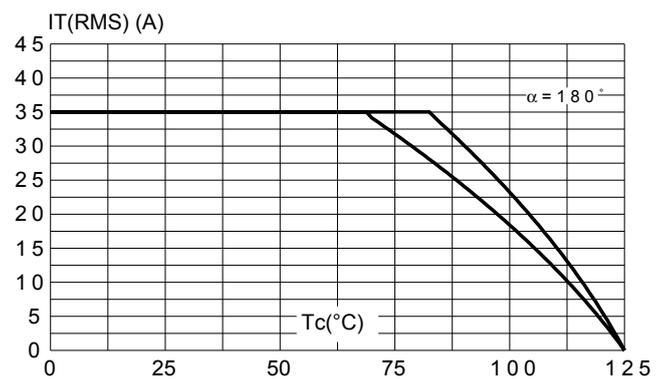


Fig. 2: RMS on-state current versus case temperature (full cycle).

SBTA35G04B thru SBTA35G16B

Discrete Triacs (Isolated)

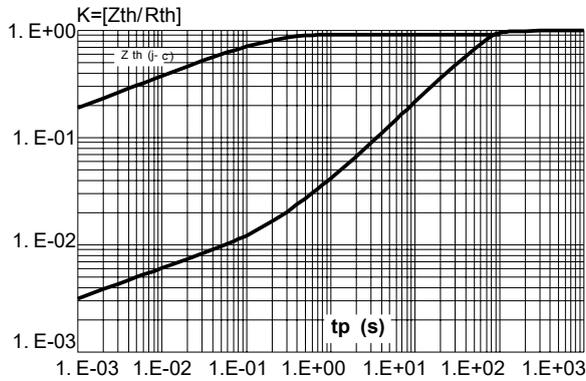


Fig.3: Relative variation of thermal impedance versus pulse duration.

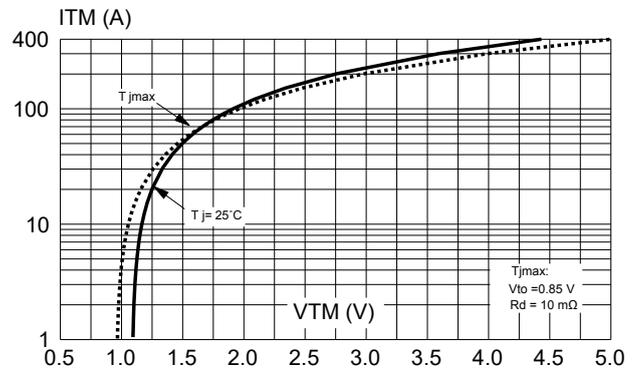


Fig.4: On-state characteristics (maximum values).

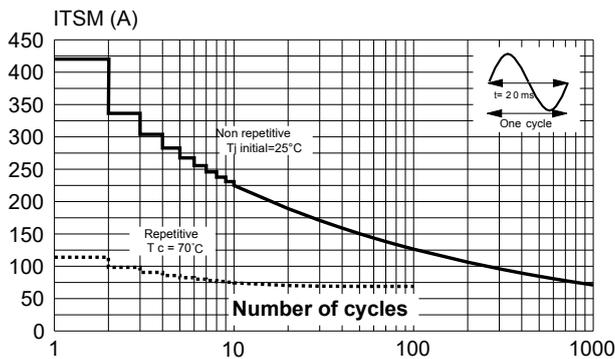


Fig.5: Surge peak on-state current versus number of cycles.

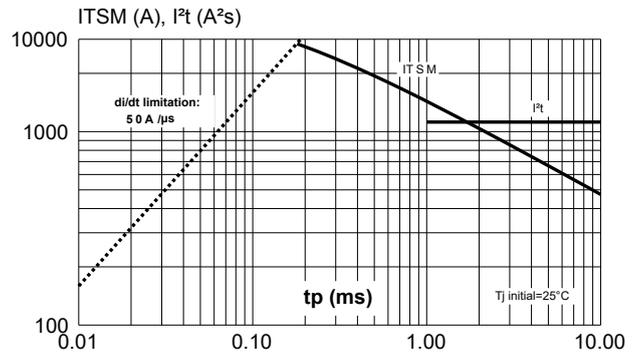


Fig. 6 : Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10$ ms, and corresponding value of I^2t .

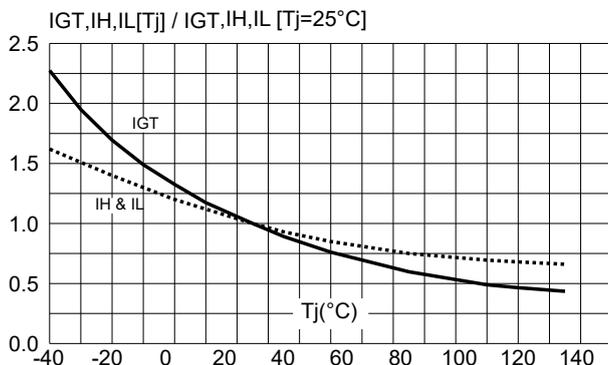


Fig. 7: Relative variation of gate trigger current, holding current and latching current versus junction temperature (typical values).

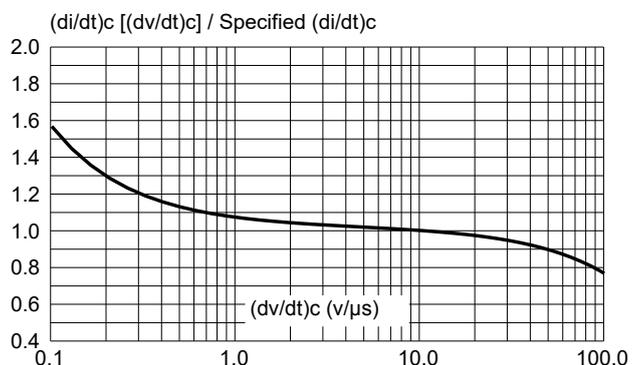


Fig. 8: Relative variation of critical rate of decrease of main current versus $(dV/dt)_c$ (typical values).