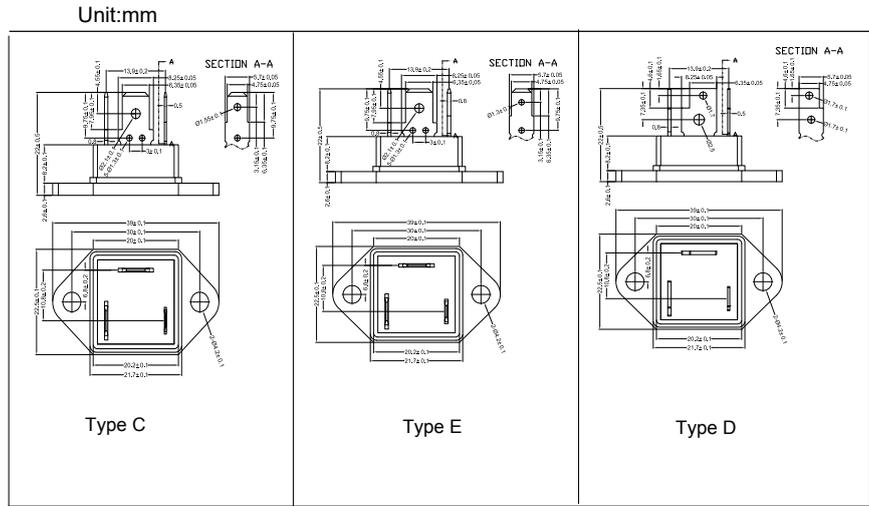


# SBTA25G04B thru SBTA25G16B

## Discrete Triacs(Isolated)



	VDRM/RRM	VDSM/RSM
	V	V
SBTA25G04B	400	500
SBTA25G06B	600	700
SBTA25G08B	800	900
SBTA25G10B	1000	1100
SBTA25G12B	1200	1300
SBTA25G16B	1600	1700

Symbol	Test Conditions	Maximum Ratings	Unit	
$I_{TRMS}$	$T_J=80^\circ C$	25	A	
$I_{TSM}$	$T_{VJ}=45^\circ C$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	260 300	A	
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	220 250		
$I^2t$	$T_{VJ}=45^\circ C$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	320 380	A <sup>2</sup> s	
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10ms$ (50Hz), sine $t=8.3ms$ (60Hz), sine	260 310		
$(di/dt)_{cr}$	$T_{VJ}=T_{VJM}$ $f=50Hz, t_p=200\mu s$ $V_D=2/3V_{DRM}$ $I_G=0.3A$ $di_G/dt=0.3A/\mu s$	repetitive, $I_T=25A$  non repetitive, $I_T=I_{TAVM}$	50  300	A/ $\mu s$
$(dv/dt)_{cr}$	$T_{VJ}=T_{VJM};$ $R_{GK}=\infty$ ; method 1 (linear voltage rise)	$V_{DR}=2/3V_{DRM}$	500	V/ $\mu s$
$P_{GM}$	$T_{VJ}=T_{VJM}$ $I_T=I_{TAVM}$	$t_p=30\mu s$ $t_p=300\mu s$	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,		2500	VAC
$M_d$	Mounting torque (M4)		0.8...1.5	Nm
Weight			25	g



# SBTA&5G04B thru SBTA&5G16B

## Discrete Triacs(Isolated)

Symbol	Test Conditions	Characteristic Values	Unit	
$I_R, I_D$	$T_{VJ}=T_{VJM}; V_D=V_{DRM}$	5	mA	
$V_{TM}$	$I_T=25A; T_{VJ}=25^{\circ}C$	1.40	V	
$V_{TO}$	For power-loss calculations only ( $T_{VJ}=125^{\circ}C$ )	0.80	V	
$r_T$		8.9	m $\Omega$	
$V_{GT}$	$V_D=6V; I_T=1A; T_{VJ}=25^{\circ}C$	I	3	V
		II	3	
		III	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	1.6	K/W	
$R_{thJH}$	DC current	1.8	K/W	
a	Max. acceleration, 50 Hz	50	m/s <sup>2</sup>	

# SBTA&5G04B thru SBTA&5G16B

## Discrete Triacs(Isolated)

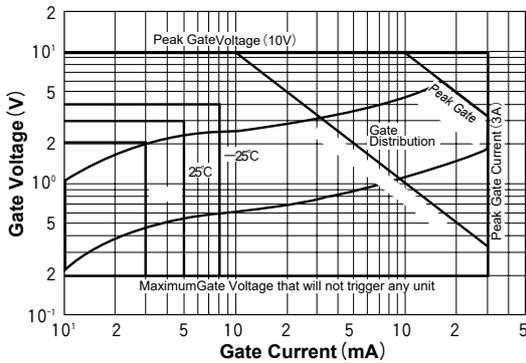


Fig1. Gate Characteristics

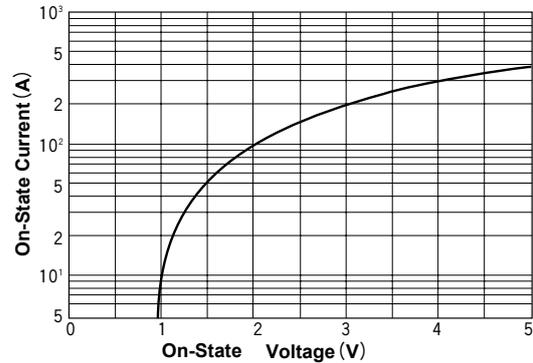


Fig2. On-State Voltage

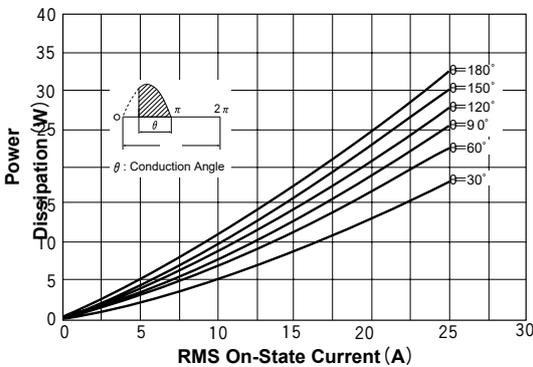


Fig3. On State Current vs. Maximum Power Dissipation

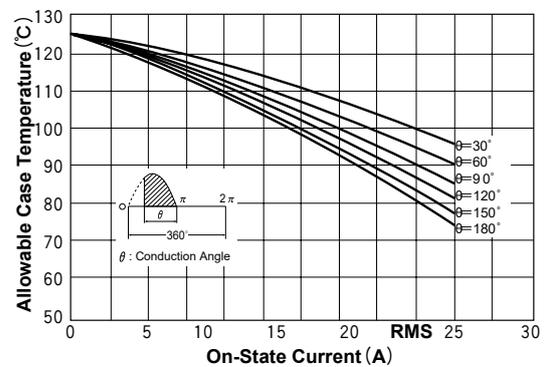


Fig4. On State Current vs. Allowable Case Temperature

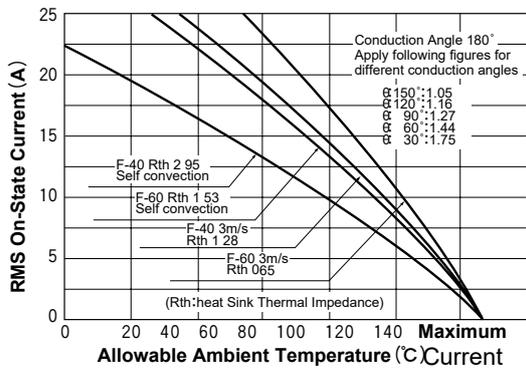


Fig5. Ambient temp. vs. RMS On-State

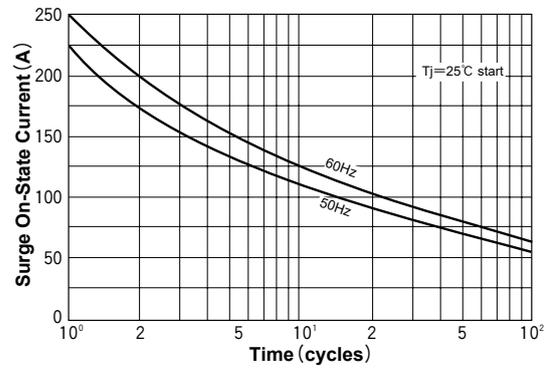


Fig6. Surge On-State Current Rating (Non-Repetitive)

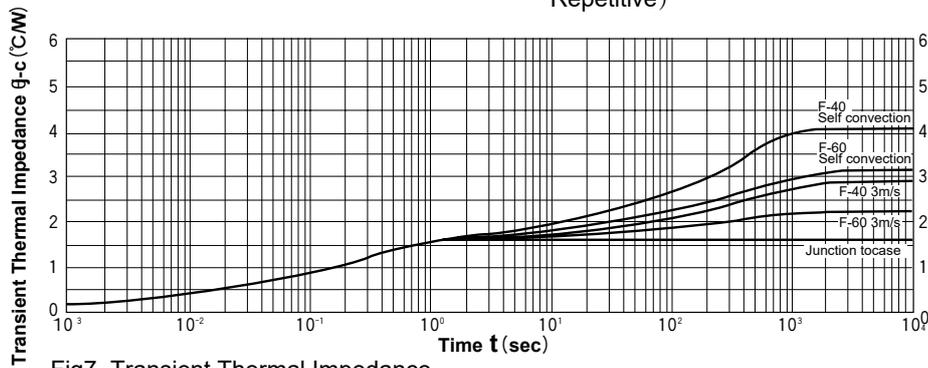


Fig7. Transient Thermal Impedance

