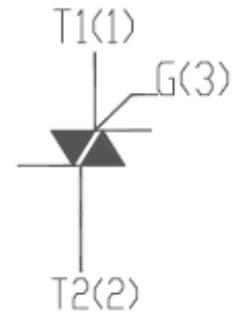
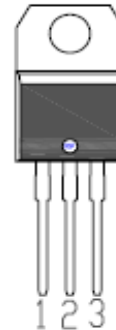


● Features and Applications:

- * NPNPN Bi-direction Triac
- * Back multilayer metal electrode
- * High temperature reliability
- * Glass Passivated junction chips



Application:

Power tool ,moto speed controller,Vacuum cleaner,heating temperature controller, Solid state relay and phase control circuits.

● Limiting Values

Symbol	Test Conditions			Value	Unit
$I_{T(RMS)}$	R.M.S. On-State Current	BTA BTB	$T_c=80^{\circ}C$ $T_c=90^{\circ}C$	12	A
I_{TSM}	Non-Repetitive Surge Peak On-State		$F=50HZ$ $t=20ms$	120	A
I^2t	Current(full cycle) I^2t Value for Fusing		$tp=10ms$	72	A^2S
di/dt	Critical Rate of Rise of On-State Current		$T_j=125^{\circ}C$	50	A/us
V_{DRM}/V_{RRM}	Repetitive peak Off-State voltage Repetitive Peak		$T_j=25^{\circ}C$	600	V
I_{GM}	Reverse voltage Peak Gate Current		$tp=20us$ $T_j=125^{\circ}C$	4	A
$P_{G(AV)}$	Average Gate Power Dissipation		$T_j=125^{\circ}C$	10	W
T_{stg} T_j	Storage temperature range Operating junction temperature			$-40^{\circ}C \sim +150^{\circ}C$ $-40^{\circ}C \sim +125^{\circ}C$	$^{\circ}C$

● Electrical Characteristics(Ta=25°C unless otherwise specified)

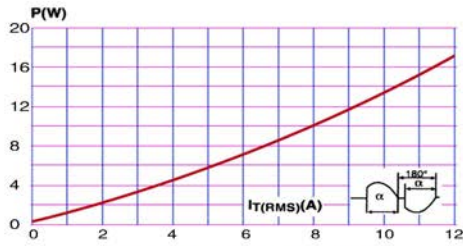
Symbol	Test Conditions	Quadrant		Value	Unit
I _{GT}	V _D =12V R _L =100Ω	I II III	MAX	≅ 50	mA
V _{GT}			MAX	1.5	V
V _{GD}	T _j =125°C		MIN	0.2	V
I _H	I _T =0.5A		MAX	60	mA
I _L	I _G =1.2I _{GT}		MAX	I -III 60	mA
				II 100	
dv/dt	V _D =2/3V _{DRM} T _j =125°C		MIN	500	V/us
(dv/dt) _c	T _j =125°C		MIN	8	V/us

● Static Characteristics

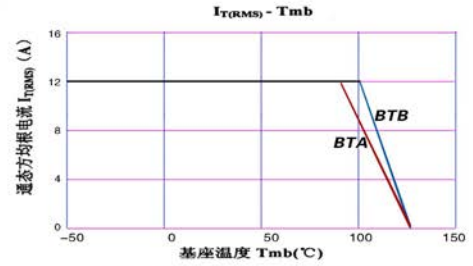
Symbol	Test Conditions		Value	Unit
V _{TM}	I _{TM} = 32A T _j =25°C	MAX	1.40	V
V _{T0}	T _j =125°C	MAX	0.86	V
R _d	T _j =125°C	MAX	36.6	mΩ
I _{DRM} I _{RRM}	T _j =25°C	MAX	5	uA
	T _j =125°C		1	mA
R _{th(j-c)}	BTA		2.05	°C/W
	BTB		1.25	

● Typical Characteristics

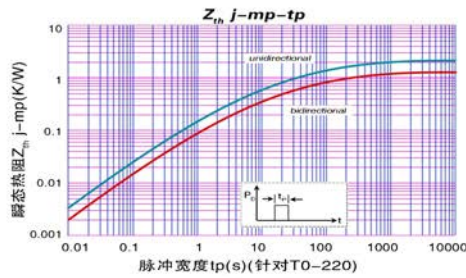
BTA12,BTB12特性曲线(TO-220)



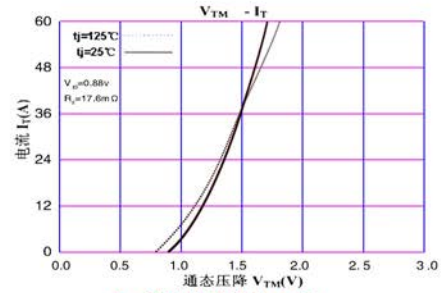
1、功耗与电流曲线 (180°C)



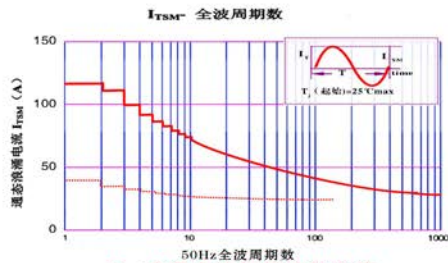
2、壳温与通态方均根电流曲线



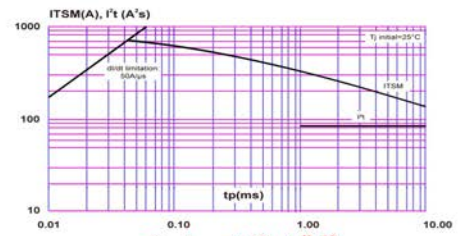
3、瞬态热阻曲线



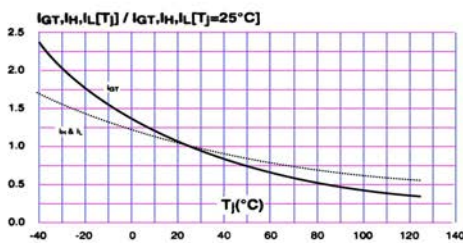
4、通态伏安特性曲线



5、浪涌电流与周波数曲线



6、 $I_{TSM}-t, I^2t-t$ 曲线



7、门极触发特性曲线

● **TO-220 Outline Package Dimension**

Unit: mm (±0.1)

