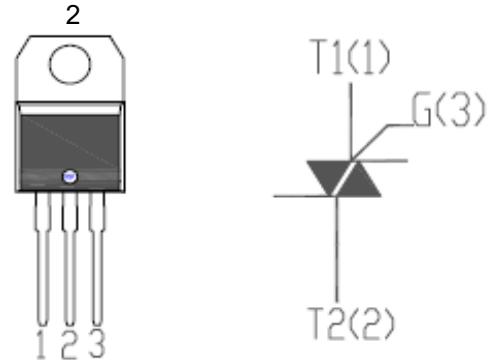


Features:

- * 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.



TO-220

●ABSOLUTE MAXIMUM RATINGS

Symbol	Test Conditions		Value	Unit
$I_{T(RMS)}$	R.M.S. On-State Current	$T_c=80^{\circ}\text{C}$	16	A
I_{TSM}	Non-Repetitive Surge Peak On-State	$F=50\text{HZ}$ $t=20\text{ms}$	160	A
I^2t	Current(full cycle) I^2t Value for Fusing	$t_p=10\text{ms}$	144	A^2S
di/dt	Critical Rate of Rise of On-State Current	$T_j=125^{\circ}\text{C}$	50	A/us
V_{DRM}/V_{RRM}	Repetitive peak Off-State voltage Repetitive Peak	$T_j=25^{\circ}\text{C}$	600	V
I_{GM}	Reverse voltage Peak Gate Current	$t_p=20\mu\text{s}$ $T_j=125^{\circ}\text{C}$	4	A
$P_{G(AV)}$	Average Gate Power Dissipation	$T_j=125^{\circ}\text{C}$	1	W
T_{stg} T_j	Storage temperature range Operating junction temperature	$-40^{\circ}\text{C} \sim +150^{\circ}\text{C}$ $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$		$^{\circ}\text{C}$

Electrical Characteristics(3 quadrant) (Ta=25°C unless otherwise specified)

Symbol	Test Conditions	Quadrant		Value		Unit
I_{GT}	$V_D=12V$ $R_L=100\Omega$	I II III IV	MAX	I II III	IV	mA
				10	25	
V_{GT}			MAX	1.5		V
V_{GD}	$T_j=125^\circ C$		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	$V_D=2/3V_{DRM}$ $T_j=125^\circ C$		MIN	500		V/us
$(dv/dt)_c$	$T_j=125^\circ C$		MIN	10		V/us

Static Characteristics

Symbol	Test Conditions		Value	Unit
V _{TM}	I _{TM} = 32A T _j =25℃	MAX	1.50	V
V _{T0}	T _j =125℃	MAX	0.87	V
R _d	T _j =125℃	MAX	14.6	mΩ
I _{DRM}	T _j =25℃	MAX	5	uA
I _{RRM}	T _j =125℃		1	mA
R _{th(j-c)}			1.3	℃/W

Electrical Characteristic Curve

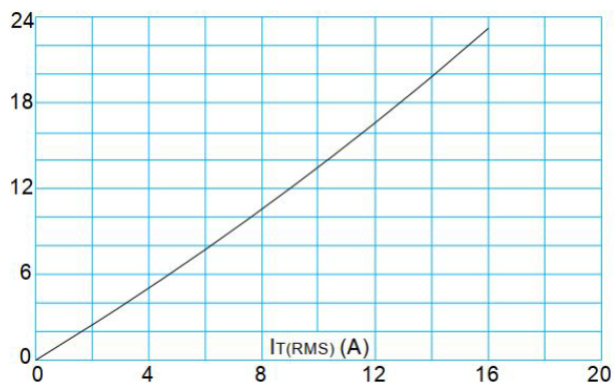


FIG.1: Maximum power dissipation versus RMS on-state current

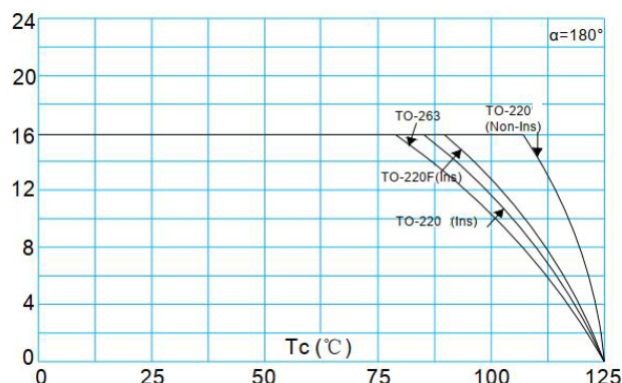


FIG.2: RMS on-state current versus case temperature

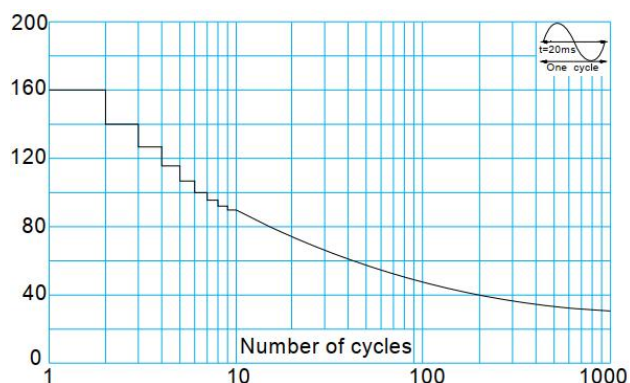


FIG.3: Surge peak on-state current versus number of cycles

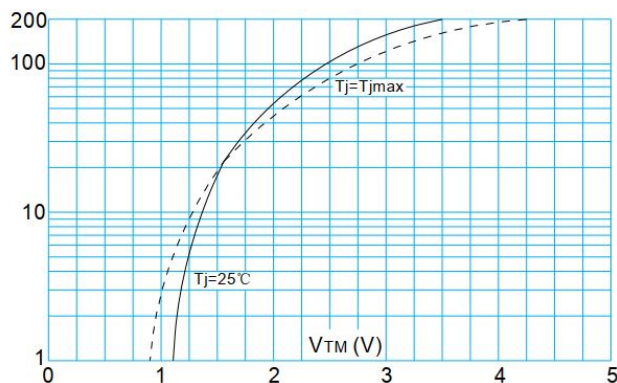


FIG.4: On-state characteristics (maximum values)

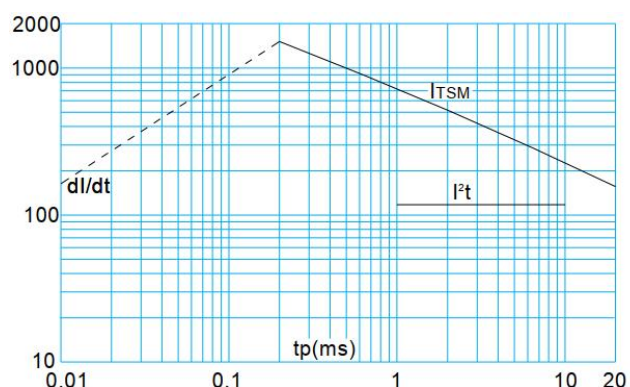


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of I^2t (I - II - III: $dI/dt < 50\text{A}/\mu\text{s}$; IV: $dI/dt < 10\text{A}/\mu\text{s}$)

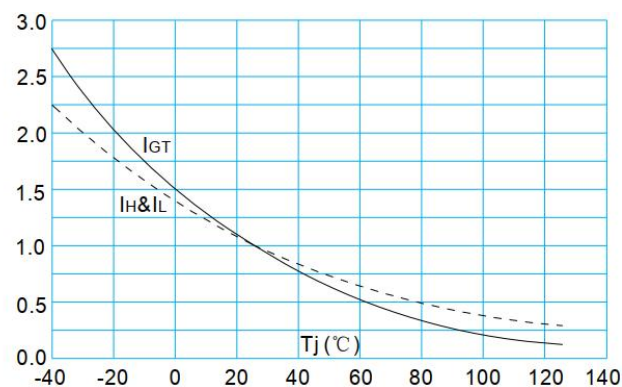


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

● **TO-220 Outline Package Dimension**

Unit: mm (± 0.1)

