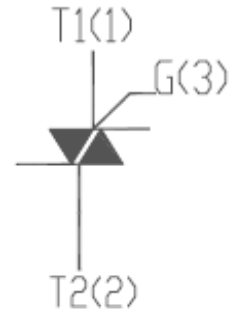
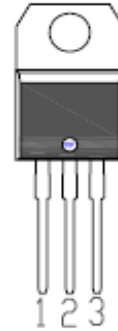


● Features :

- * 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.



● Limiting Values

Symbol	Test Conditions		Value	Unit
$I_{T(RMS)}$	R.M.S. On-State Current	$T_c=80^{\circ}C$	24	A
I_{TSM}	Non-Repetitive Surge Peak On-State	$F=50HZ$ $t=20ms$	240	A
I^2t	Current(full cycle) I^2t Value for Fusing	$t_p=10ms$	288	A ² S
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	$t_p=20us$ $T_j=125^{\circ}C$	4	A
$P_{G(AV)}$	Average Gate Power Dissipation	$T_j=125^{\circ}C$	1	W
T_{stg} T_j	Storage temperature range Operating junction temperature		-40 °C --- +150 °C -40 °C --- +125 °C	°C

● Electrical Characteristics(3 Quadrant)(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	80	mA
I _L	I _G =1.2I _{GT}		MAX	I - III	80
				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	10	V/us

● Static Characteristics

Symbol	Test Conditions		Value	Unit
V _{TM}	I _{TM} = 50A T _j =25°C	MAX	1.55	V
V _{T0}	T _j =125°C	MAX	0.87	V
R _d	T _j =125°C	MAX	14.6	mΩ
I _{DRM} I _{RRM}	T _j =25°C	MAX	5	uA
	T _j =125°C		1	mA
R _{th(j-c)}			2.05	°C/W

Characteristics(Curves)

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

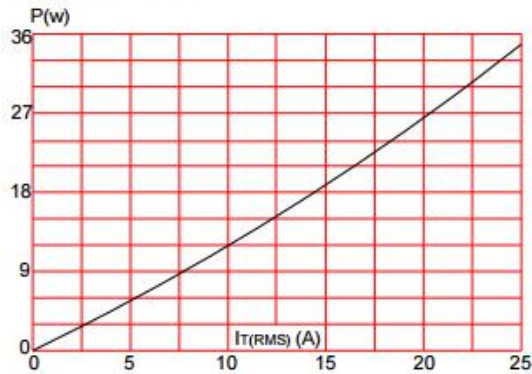


FIG.2: RMS on-state current versus case temperature

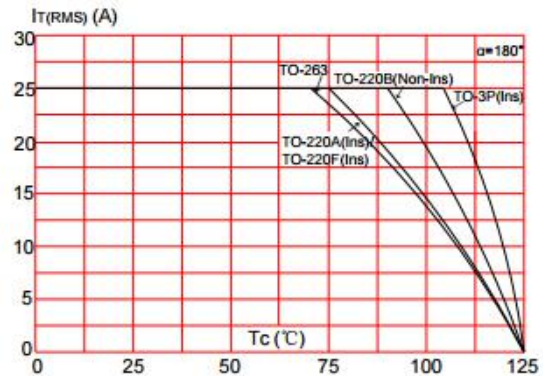


FIG.3: Surge peak on-state current versus number of cycles

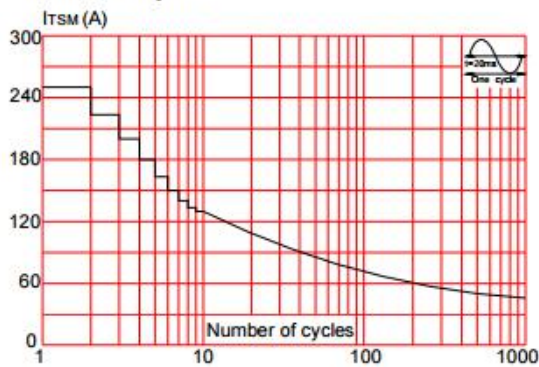


FIG.4: On-state characteristics (maximum values)

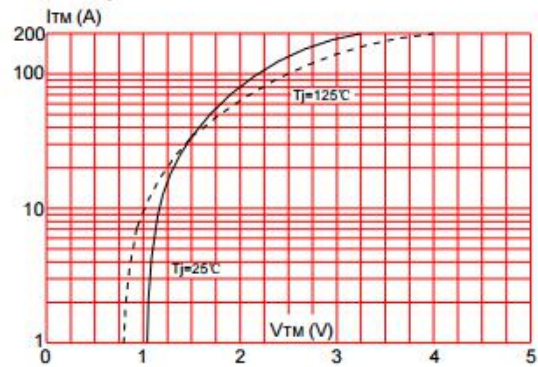


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of I^2t ($di/dt < 50\text{A}/\mu\text{s}$)

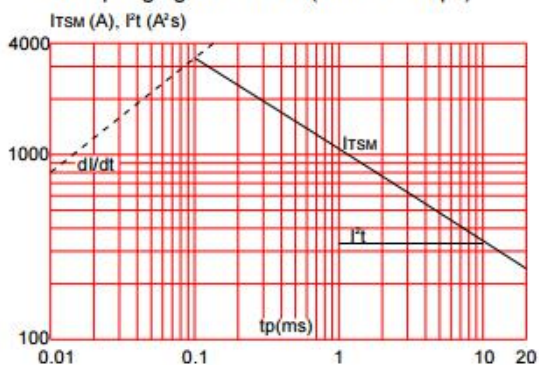
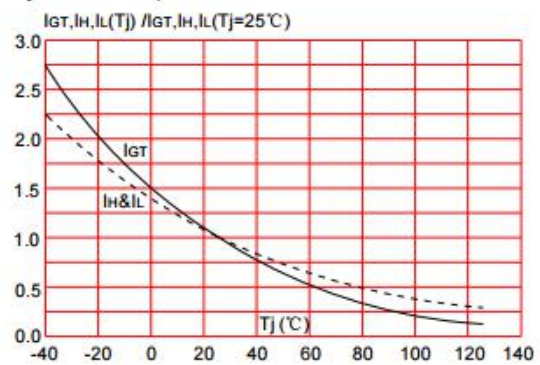


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature



● **TO-220 Outline Package Dimension**

Unit: mm (± 0.1)

