

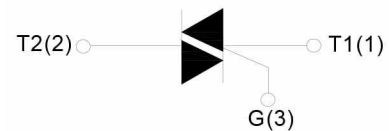
DESCRIPTION:

With high ability to withstand the shock loading of large current, **BTA26-TP** triacs provide high dv/dt rate with strong resistance to electromagnetic interface. With high commutation performances, 3 quadrants products especially recommended focus on inductive load.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	25	A
V_{DRM}/V_{RRM}	600/800/1200/1600	V



ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Storage junction temperature range		T_{stg}	-40-150	°C
Operating junction temperature range		T_j	-40-125	°C
Repetitive peak off-state voltage ($T_j=25^{\circ}\text{C}$)		V_{DRM}	600/800/1200/1600	V
Repetitive peak reverse voltage ($T_j=25^{\circ}\text{C}$)		V_{RRM}	600/800/1200/1600	V
RMS on-state current	TO-220A(Ins)/ TO-220F(Ins) ($T_c=70^{\circ}\text{C}$)	$I_{T(RMS)}$	25	A
	TO-220C/ TO-220B(Non-Ins) ($T_c=85^{\circ}\text{C}$)			
	TO-262 ($T_c=50^{\circ}\text{C}$)			
	TO-3P(Ins) ($T_c=95^{\circ}\text{C}$)			
Non repetitive surge peak on-state current (full cycle, $F=50\text{Hz}$)		I_{TSM}	250	A
I^2t value for fusing ($t_p=10\text{ms}$)		I^2t	340	A^2s

Critical rate of rise of on-state current ($I_G = 2 \times I_{GT}$)	di/dt	50	A/ μ s
Peak gate current	I_{GM}	4	A
Average gate power dissipation	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	10	W

ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$ unless otherwise specified)

V_{DRM}/V_{RRM} : 600/800V

Symbol	Test Condition	Quadrant		Value		Unit
				BW	CW	
I_{GT}	$V_D = 12V$ $R_L = 33\Omega$	I - II - III	MAX	50	35	mA
V_{GT}		I - II - III	MAX	1.3		V
V_{GD}	$V_D = V_{DRM}$ $T_j = 125^\circ\text{C}$ $R_L = 3.3K\Omega$	I - II - III	MIN	0.2		V
I_L	$I_G = 1.2I_{GT}$	I - III	MAX	80	70	mA
		II		100	80	
I_H	$I_T = 100\text{mA}$		MAX	75	50	mA
dV/dt	$V_D = 2/3V_{DRM}$ Gate Open $T_j = 125^\circ\text{C}$		MIN	1000	500	V/ μ s

V_{DRM}/V_{RRM} : 1200/1600V

Symbol	Test Condition	Quadrant		Value		Unit
				BW	CW	
I_{GT}	$V_D = 12V$ $R_L = 33\Omega$	I - II - III	MAX	50	35	mA
V_{GT}		I - II - III	MAX	1.5		V
V_{GD}	$V_D = V_{DRM}$ $T_j = 125^\circ\text{C}$ $R_L = 3.3K\Omega$	I - II - III	MIN	0.2		V
I_L	$I_G = 1.2I_{GT}$	I - III	MAX	90	70	mA
		II		100	80	
I_H	$I_T = 100\text{mA}$		MAX	80	60	mA
dV/dt	$V_D = 2/3V_{DRM}$ Gate Open $T_j = 125^\circ\text{C}$		MIN	1500	1000	V/ μ s

$V_{\text{DRM}}/V_{\text{RRM}}: 600/800\text{V}$

Symbol	Test Condition	Quadrant		Value		Unit
				B	C	
I_{GT}	$V_{\text{D}}=12\text{V } R_{\text{L}}=33\Omega$	I - II -III	MAX	50	25	mA
		IV		70	50	
V_{GT}		ALL	MAX	1.3		V
V_{GD}	$V_{\text{D}}=V_{\text{DRM}} T_{\text{J}}=125^{\circ}\text{C}$ $R_{\text{L}}=3.3\text{K}\Omega$	ALL	MIN	0.2		V
I_{L}	$I_{\text{G}}=1.2I_{\text{GT}}$	I -III-IV	MAX	80	70	mA
		II		100	90	
I_{H}	$I_{\text{T}}=100\text{mA}$		MAX	75	60	mA
dV/dt	$V_{\text{D}}=2/3V_{\text{DRM}}$ Gate Open $T_{\text{J}}=125^{\circ}\text{C}$		MIN	500	200	V/ μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
V_{TM}	$I_{\text{TM}}=35\text{A } t_{\text{p}}=380\mu\text{s}$	$T_{\text{J}}=25^{\circ}\text{C}$	1.5	V
I_{DRM}	$V_{\text{D}}=V_{\text{DRM}} V_{\text{R}}=V_{\text{RRM}}$	$T_{\text{J}}=25^{\circ}\text{C}$	5	μA
I_{RRM}		$T_{\text{J}}=125^{\circ}\text{C}$	3	mA

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
$R_{\text{th(j-c)}}$	junction to case(AC)	TO-220A(Ins)	1.5	$^{\circ}\text{C/W}$
		TO-220C/ TO-220B(Non-Ins)	1.1	
		TO-220F(Ins)	1.7	
		TO-262	2.1	
		TO-3P(Ins)	0.67	

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

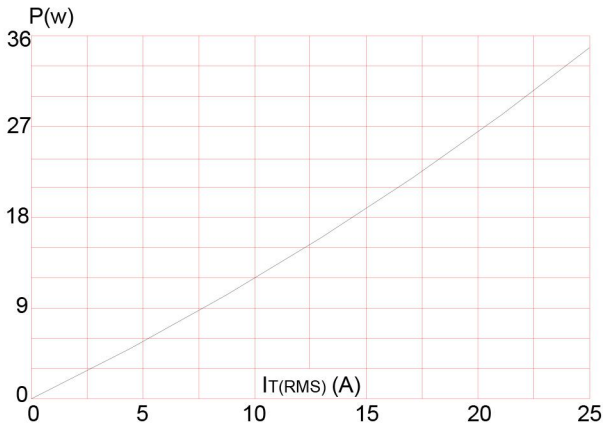


FIG.2: RMS on-state current versus case temperature

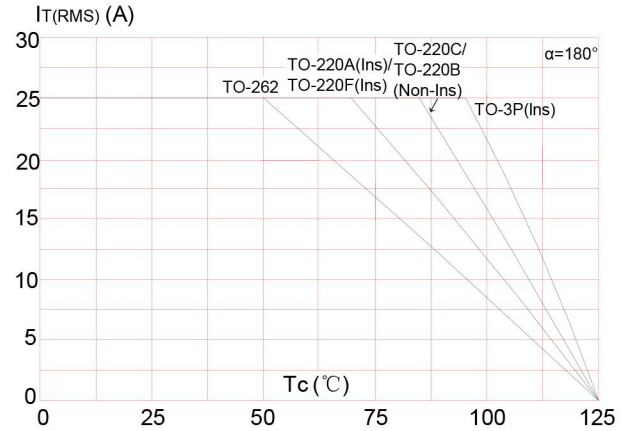


FIG.3: Surge peak on-state current versus number of cycles

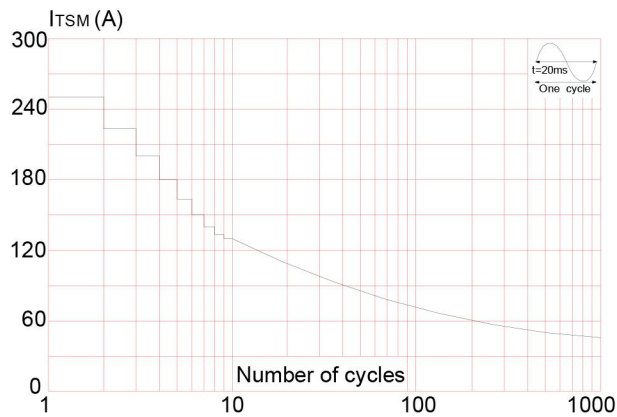


FIG.4: On-state characteristics (maximum values)

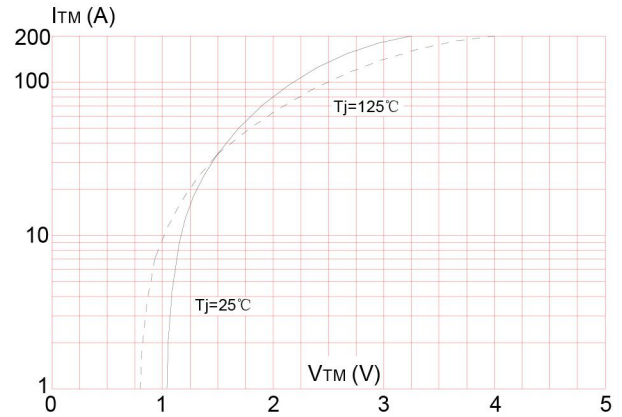


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of I^2t ($di/dt < 50\text{A}/\mu\text{s}$)

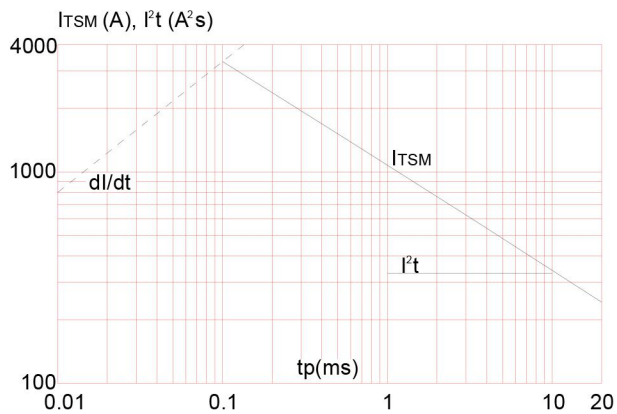


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

