

**25A 3Quadrants TRIACs**

**Product Summary**

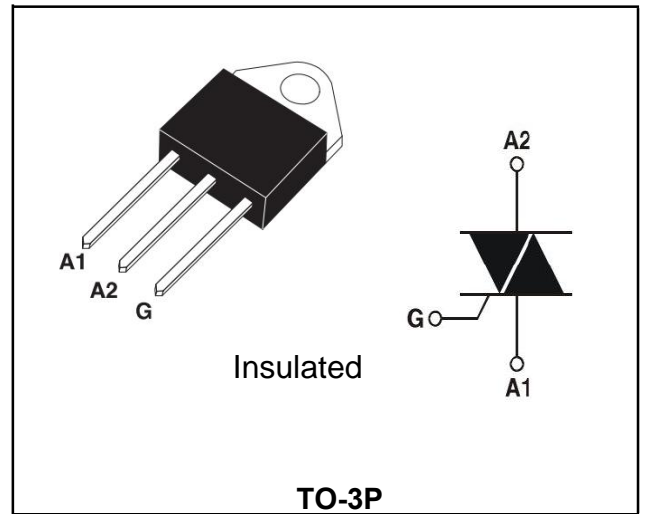
Symbol	Value	Unit
$I_{T(AV)}$	25	A
$V_{DRM} V_{RRM}$	800	V
$V_{TM}$	1.55	V

**Features**

With high ability to withstand the shock loading of large current, With high commutation performances, 3 quadrants products especially recommended for use on inductive load.

**Application**

Washing machine, vacuums, massager, solid state relay, AC Motor speed regulation and so on.



**Absolute maximum ratings (Ta=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Repetitive peak off-state voltage	$V_{DRM}$	800	V
Repetitive peak reverse voltage	$V_{RRM}$	800	V
RMS on-state current	$I_T(RMS)$	25	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	$I_{TSM}$	250	A
$I^2t$ value for fusing (tp=10ms)	$I^2t$	340	A <sup>2</sup> s
Critical rate of rise of on-state current ( $I_G = 2 \times I_{GT}$ )	$di/dt$	50	A/ $\mu$ s
Peak gate current	$I_{GM}$	4	A
Average gate power dissipation	$P_G (AV)$	1	W
Junction Temperature	$T_J$	-40~+125	°C
Storage Temperature	$T_{STG}$	-40 ~+150	°C

**Electrical characteristics (TA=25°C, unless otherwise noted)**

Parameter	Symbol	Test Condition		Value		Unit
Gate trigger current	$I_{GT}$	$V_D=12V$	I-II-III	MAX.	50	<b>mA</b>
Gate trigger voltage	$V_{GT}$	$R_L=33\Omega$	I-II-III	MAX.	1.3	<b>V</b>
Gate non-trigger voltage	$V_{GD}$	$V_D=V_{DRM}$ $T_j=125^\circ C$ $R_L=3.3K\Omega$	I-II-III	MIN.	0.2	<b>V</b>
latching current	$I_L$	$I_G=1.2I_{GT}$	I-II-III	MAX.	100	<b>mA</b>
Holding current	$I_H$	$I_T=100mA$		MAX.	50	<b>mA</b>
Critical-rate of rise of commutation voltage	$dV_D/dt$	$V_D=2/3V_{DRM}$ Gate Open $T_j=125^\circ C$		MIN.	1000	<b>V/<math>\mu s</math></b>

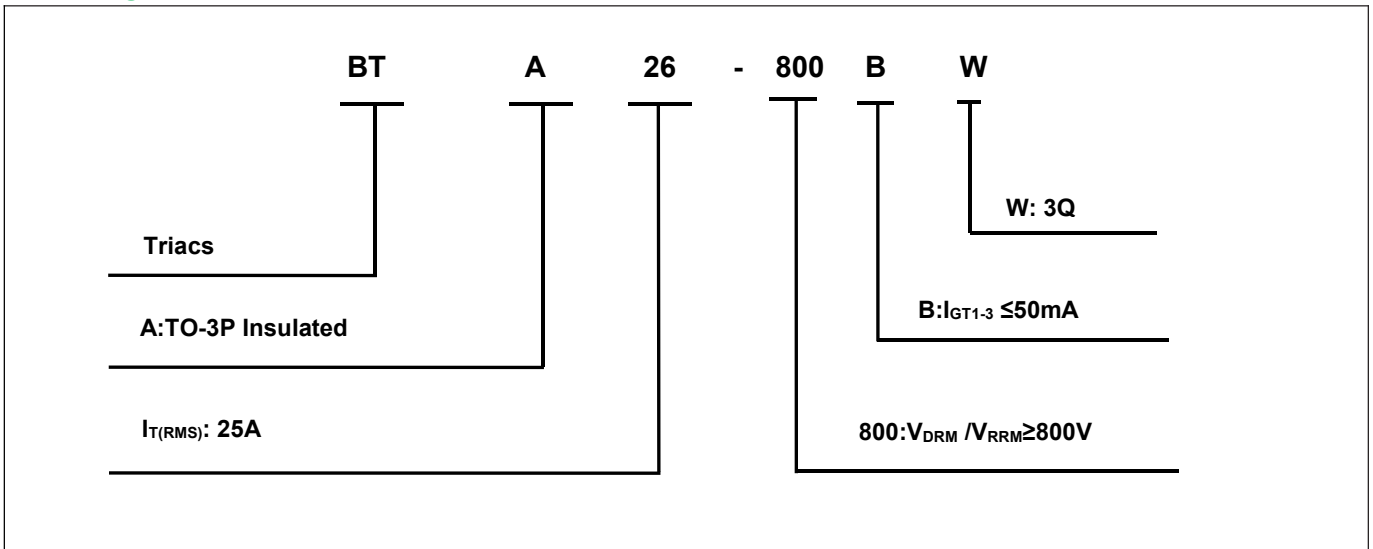
**STATIC CHARACTERISTICS**

Forward "on" voltage	$V_{TM}$	$I_{TM}=35A$ $t_p=380\mu s$		MAX.	1.55	<b>V</b>
Repetitive Peak Off-State Current	$I_{DRM}$	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25^\circ C$	MAX.	10	<b><math>\mu A</math></b>
Repetitive Peak Reverse Current	$I_{RRM}$		$T_j=125^\circ C$	MAX.	3	<b>mA</b>

**THERMAL RESISTANCES**

Thermal resistance	$R_{th(j-c)}$	Junction to case(AC)	TYP.	0.9	<b><math>^\circ C/W</math></b>
	$R_{th(j-a)}$	Junction to ambient	TYP.	50	<b><math>^\circ C/W</math></b>

**Ordering Information**



Typical Characteristics

FIG1 Maximum power dissipation versus RMS on-state current

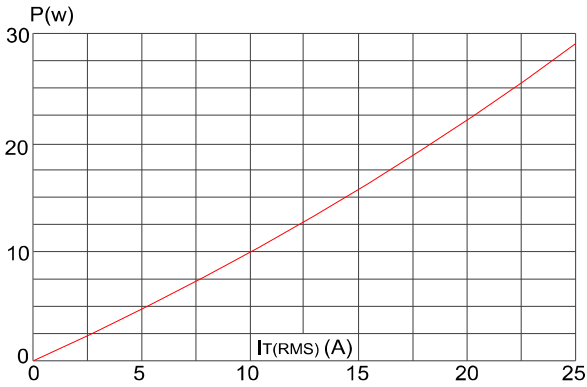


FIG2 RMS on-state current versus case temperature

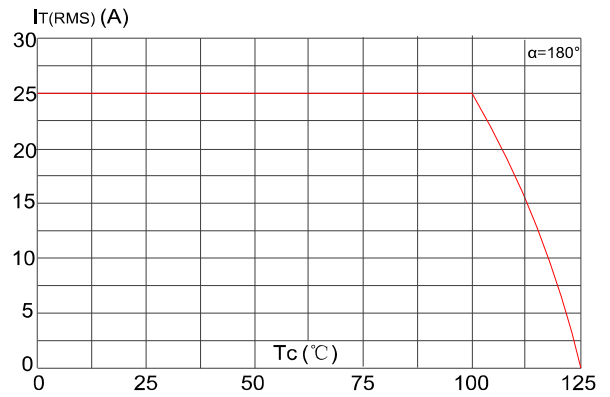


FIG3 Surge peak on-state current versus number of cycles

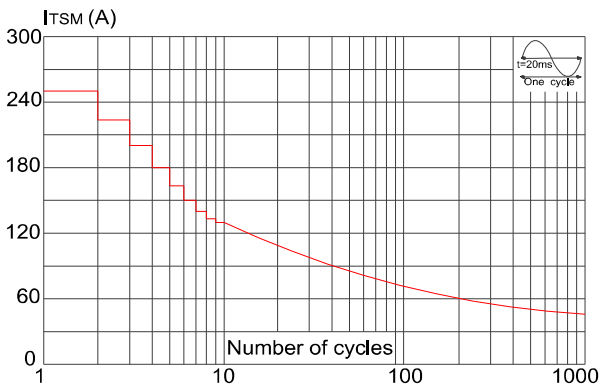


FIG4 On-state characteristics (maximum values)

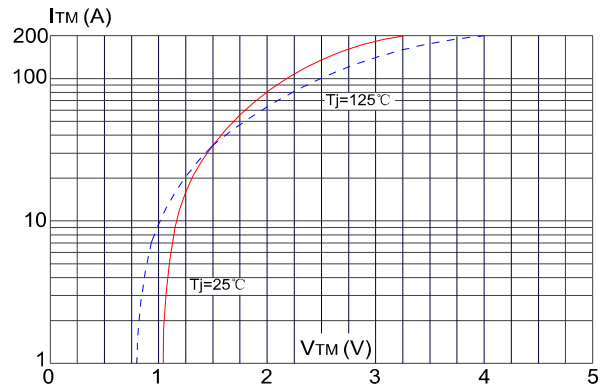


FIG5 Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 20\text{ms}$ , and corresponding value of  $I^2t$  ( $di/dt < 100\text{A}/\mu\text{s}$ )

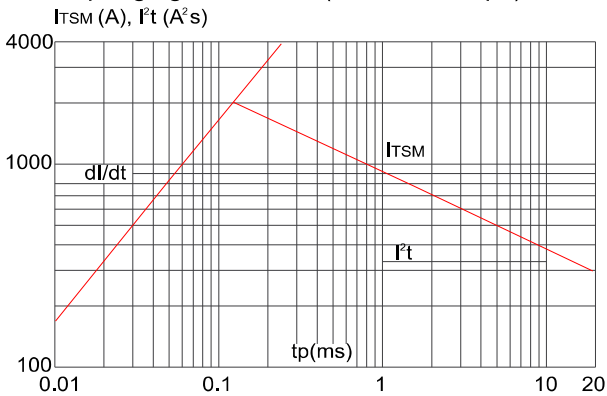
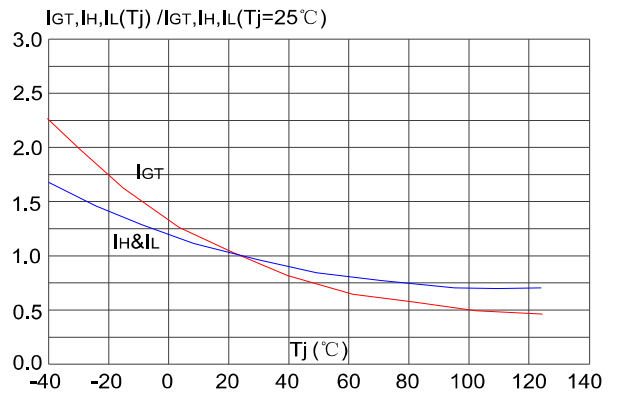
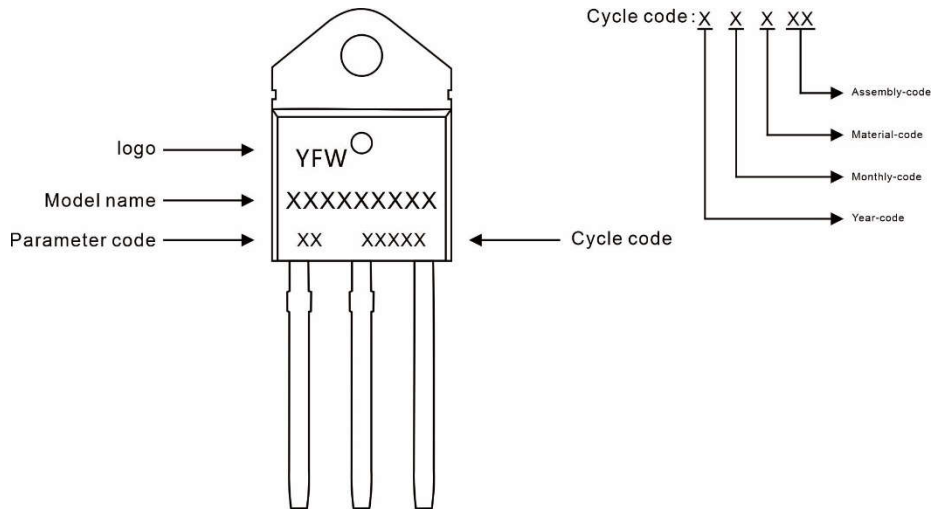


FIG6 Relative variations of gate trigger current, holding current and latching current versus junction temperature



**Marking Diagram**



**Ordering information**

Model name	Package	Base Quantity	Packing Quantity
BTA26-800BW	TO-3P	30pcs/tube	600PCS/Box 2400PCS/Carton

**Package Dimensions**

**TO-3P(Insulated)**

Symbol	Dimensions in mm		Dimensions in Inch	
	Min.	Max.	Min.	Max.
A	14.9	15.35	0.587	0.604
B	4.1	4.65	0.161	0.183
C	20.21	20.75	0.796	0.798
D	1.12	1.32	0.044	0.052
E	5.35	5.62	0.211	0.221
H	7.85	8.22	0.309	0.324
K	2.71	2.92	0.107	0.115
L	2.5	3.2	0.098	0.126
L1	15.02	15.55	0.591	0.612
T	4.38	4.65	0.172	0.183
T1	1.42	1.62	0.056	0.064
T2	0.52	0.68	0.021	0.027
ΦR	4.12	4.31	0.162	0.170

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