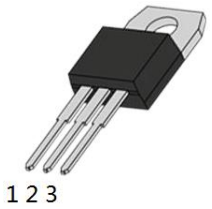
BTA16-800BA

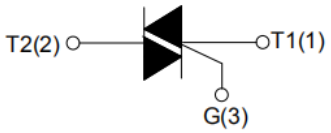
Features

- Blocking Voltage to 800 V
- Glass Passivated Surface for Reliability and Uniformity
- RoHS Compliant & HF
- High Dv/Dt Rate
- $I_{T(RMS)}$ to 16A of Triacs



TO-220A(Ins)

Pin Configuration



Absolute Maximum Ratings（Tc=25℃ Unless otherwise specified）

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40~150	℃
Operating junction temperature range	T_j	-40~125	℃
Repetitive peak off-state voltage (Tj=25℃)	V_{DRM}	800	V
Repetitive peak reverse voltage (Tj=25℃)	V_{RRM}	800	V
RMS on-state current	$I_{T(RMS)}$	16	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	I_{TSM}	160	A
I^2t value for fusing (tp=10ms)	I^2t	128	A^2s
Critical rate of rise of on-state current (IG=2×IGT)	dI/dt	50	A/μs
Peak gate current	I_{GM}	4	A
Average gate power dissipation	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	5	W

Thermal Resistance(between Junction and Case)	$R_{\theta(J-C)}$	2.1（Typ.）	℃/W

Electronics Characteristics（Tc=25℃ Unless otherwise specified）

4 Quadrants：

Parameter	Symbol	Quadrant		Value	Unit
				B	
Gate Trigger Current (Continuous dc)@VD=12V, RL=33Ω	I_{GT}	Ⅰ-Ⅱ-Ⅲ	MAX	50	mA
		Ⅳ		70	mA
Gate Trigger Voltage (Continuous dc) @VD=12V, RL=33Ω	V_{GT}	ALL		1.5	V
Gate non-trigger voltage@VD=VDRM	V_{GD}	ALL	MIN	0.2	V
Holding Current@IT=100mA	I_H	-	MAX	60	mA
Latching Current@IG=1.2IGT	I_L	Ⅰ-Ⅲ-Ⅳ	MAX	70	mA
		Ⅱ		90	mA
Critical Rate-of-Rise of Off State Voltage @VD=0.66×VDRM, Tj=125℃,Gate Open	dV/dt	-	MIN	500	V/μs
Peak Forward On-State Voltage@ITM=22.5A,tp=380μs, Tj=25℃	V_{TM}	-	MAX	1.5	V
Peak Repetitive Forward@VDRM=VRRM,Tj=25℃	I_{DRM}	-	MAX	5	μA
Reverse Blocking Current@VDRM=VRRM,Tj=125℃	I_{RRM}	-	MAX	1	mA

Note: The above typical parameters or typical characteristics are only indicative and do not make specific guarantees. If detailed values are required, additional communication and provision are required

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

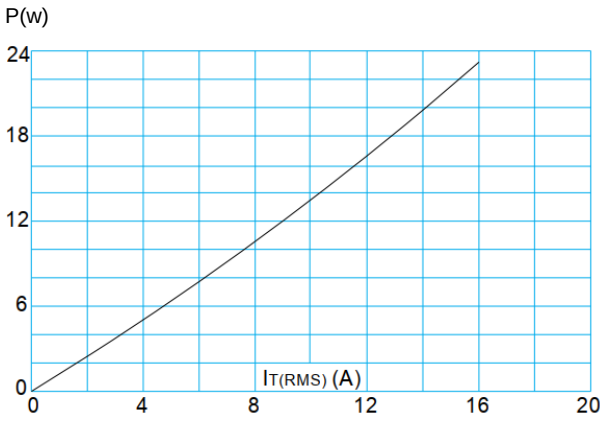


FIG.2: RMS on-state current versus case temperature in different packaging

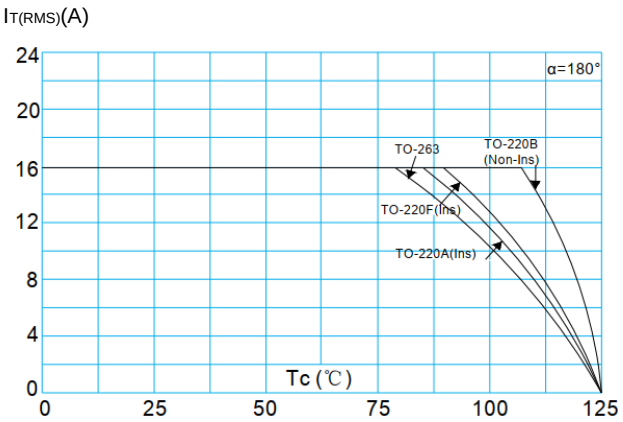


FIG.3: Surge peak on-state current versus number of cycles

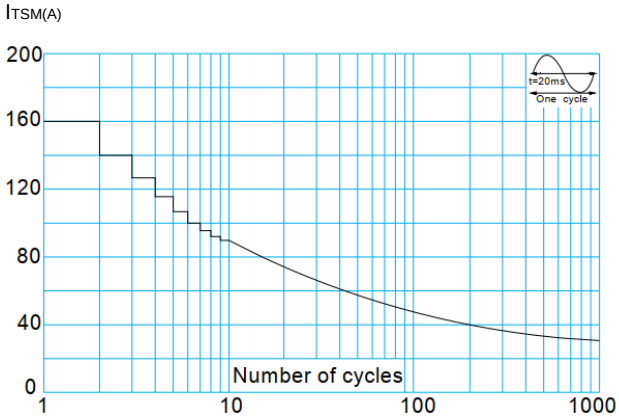


FIG.4:On-state characteristics (maximum values)

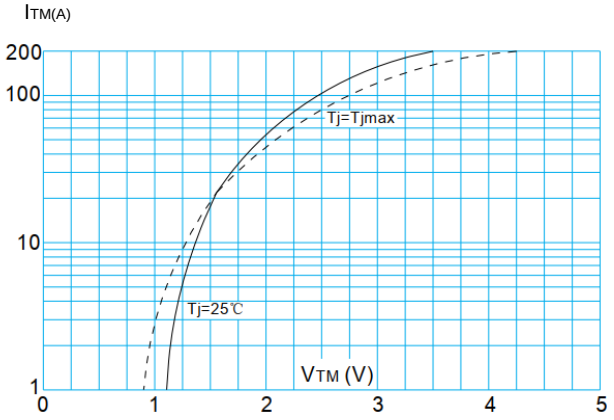


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp<20ms, and corresponging value of I^2t (Ⅰ-Ⅱ-Ⅲ:dI/dt < 50A/μs;Ⅳ:dI/dt < 10A/μs)

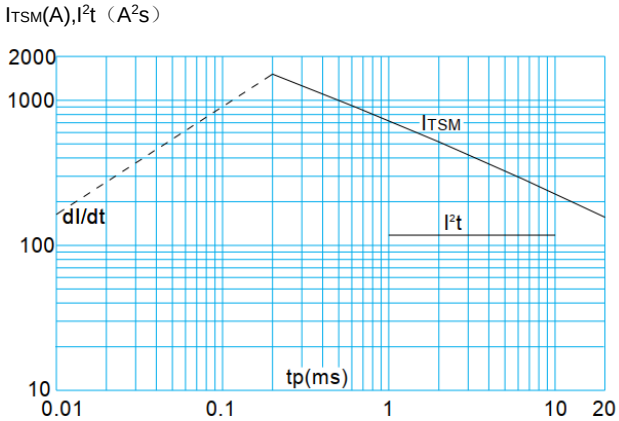
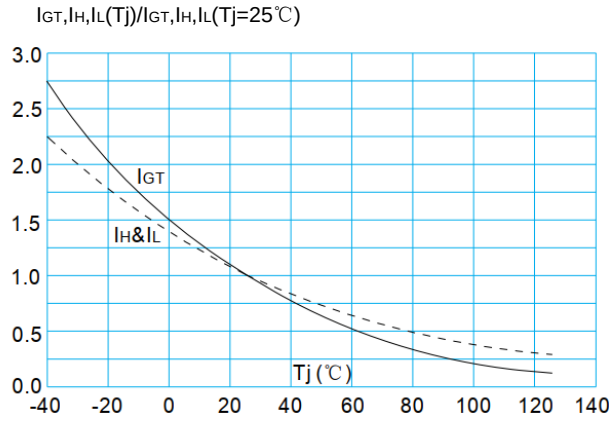
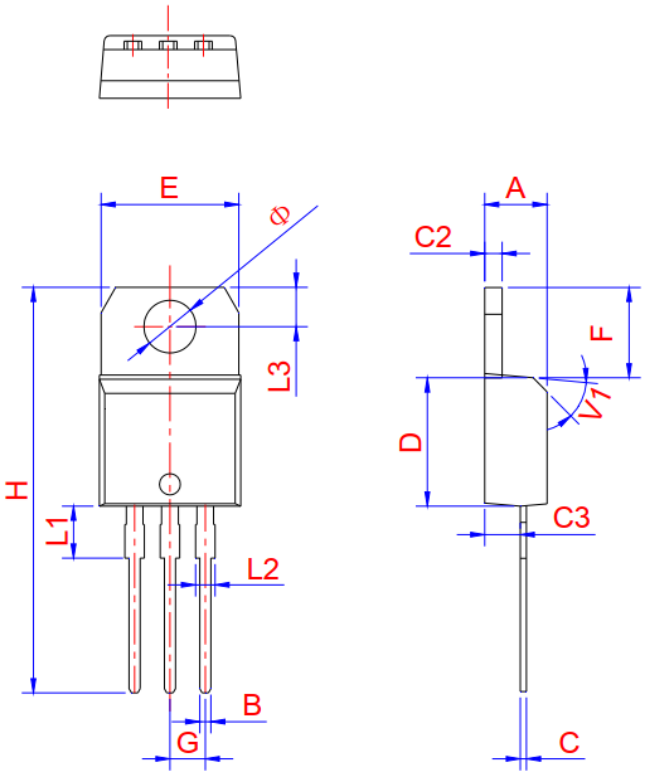


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

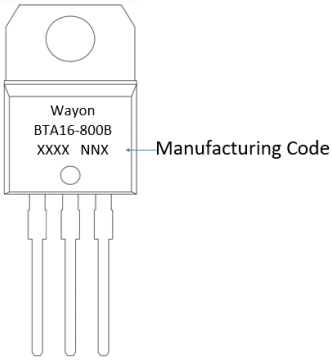


Outline Drawing

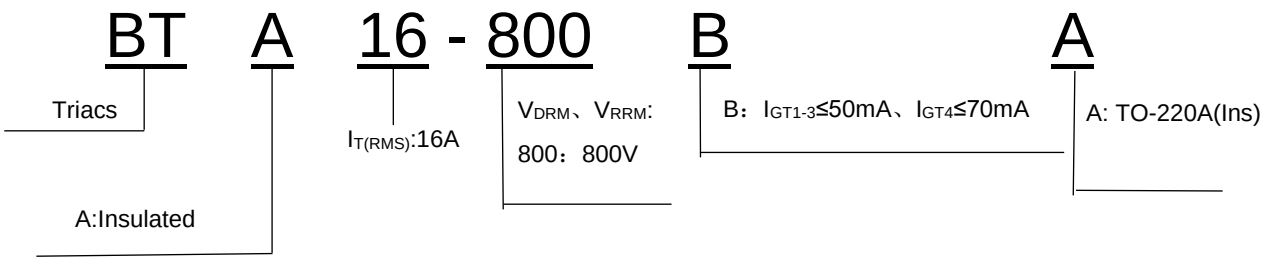
SYMBOL	MM		
	MIN	NOM	MAX
A	4.20	4.47	4.60
B	0.61	-	0.93
C	0.41	0.50	0.70
C2	1.20	1.27	1.42
C3	2.40	-	2.72
D	8.60	-	9.70
E	9.70	-	10.60
F	6.15	-	7.15
G	-	2.54	-
H	28	-	29.8
L1	-	3.75	-
L2	1.10	-	1.70
L3	2.55	-	2.95
V1	-	45°	-
Φ	3.65	3.75	3.85



Marking Code



Part Number System



Package Information

Package	Base qty.	Delivery mode
TO-220A(Ins)	50	Tube

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The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

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