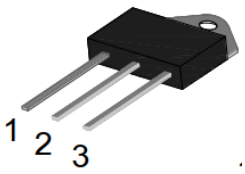
BTA41-800BE

Silicon Controlled Rectifier

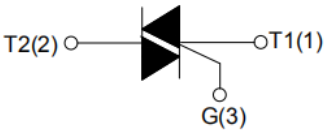
Features

- Blocking Voltage to 800V
- Glass Passivated Surface for Reliability and Uniformity
- RoHS Compliant & HF
- High Dv/Dt Rate
- $I_{T(RMS)}$ to 40A of Triacs



TO-3P(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	$I_{T(RMS)}$	40	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	I_{TSM}	400	A
I^2t value for fusing (tp=10ms)	I^2t	800	A^2s
Critical rate of rise of on-state current (IG=2×IGT)	dI/dt	50	A/μs
Peak gate current	I_{GM}	8	A
Average gate power dissipation	$P_{G(AV)}$	1	W

Peak gate power	P_{GM}	40	W
Thermal Resistance(between Junction and Case)	$R_{\theta(J-C)}$	0.9（Typ.）	℃/W

Electronics Characteristics（Tc=25℃ Unless otherwise specified）

4Quadrants：

Parameter	Symbol	Quadrant		Value	Unit
				B	
Gate Trigger Current (Continuous dc)@VD=12V, RL=33Ω	I_{GT}	Ⅰ-Ⅱ-Ⅲ	MAX	50	mA
		Ⅳ		100	mA
Gate Trigger Voltage (Continuous dc) @VD=12V, RL=33Ω	V_{GT}	ALL		1.3	V
Gate non-trigger voltage@VD=VDRM	V_{GD}	ALL	MIN	0.2	V
Holding Current@IT=500mA	I_H	-	MAX	80	mA
Latching Current@IG=1.2IGT	I_L	Ⅰ-Ⅲ-Ⅳ	MAX	80	mA
		Ⅱ		160	mA
Critical Rate-of-Rise of Off State Voltage @VD=0.66×VDRM, Tj=125℃,Gate Open	dV/dt	-	MIN	800	V/μs
Peak Forward On-State Voltage@ITM=60A,tp=380μs, Tj=25℃	V_{TM}	-	MAX	1.55	V
Peak Repetitive Forward@VDRM=VRRM,Tj=25℃	I_{DRM}	-	MAX	10	μA
Reverse Blocking Current@VDRM=VRRM,Tj=125℃	I_{RRM}	-	MAX	6	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 P(w)

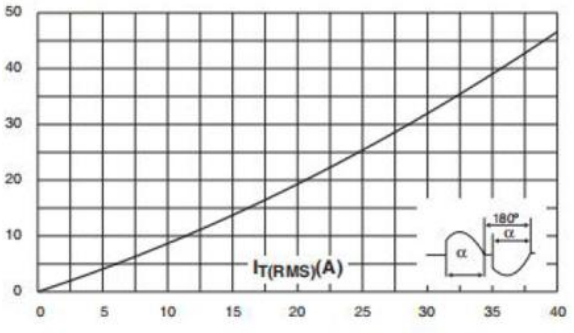


FIG.2: RMS on-state current versus case temperature $I_{T(RMS)}$(A)

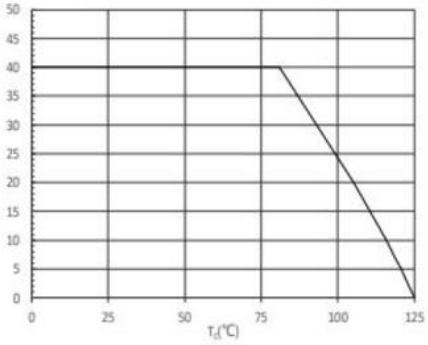


FIG.3: Surge peak on-state current versus number of cycles $I_{TSM(A)}$

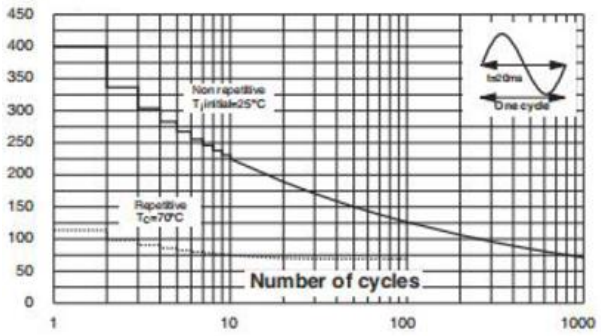


FIG.4:On-state characteristics (maximum values) $I_{TM(A)}$

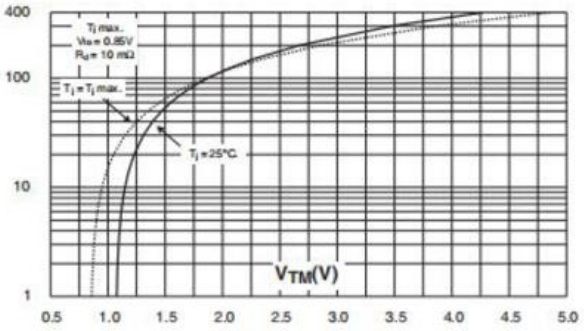
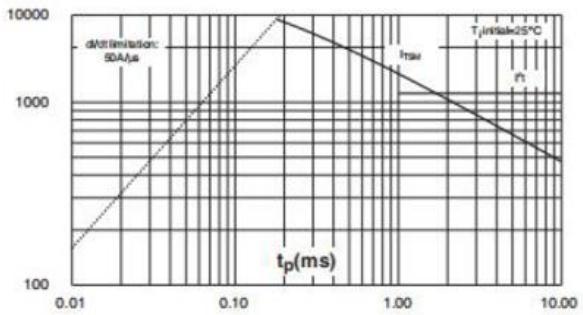
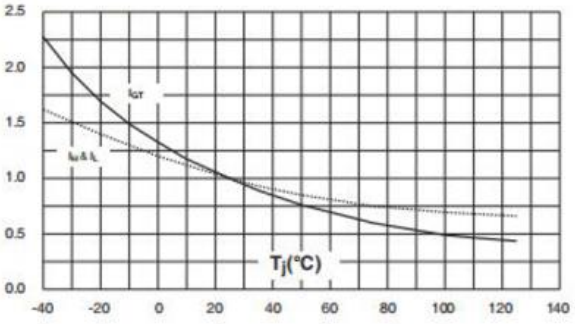


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp<10ms, and corresponging value of I^2t

I_{TSM}(A),I^2t（A^2s）

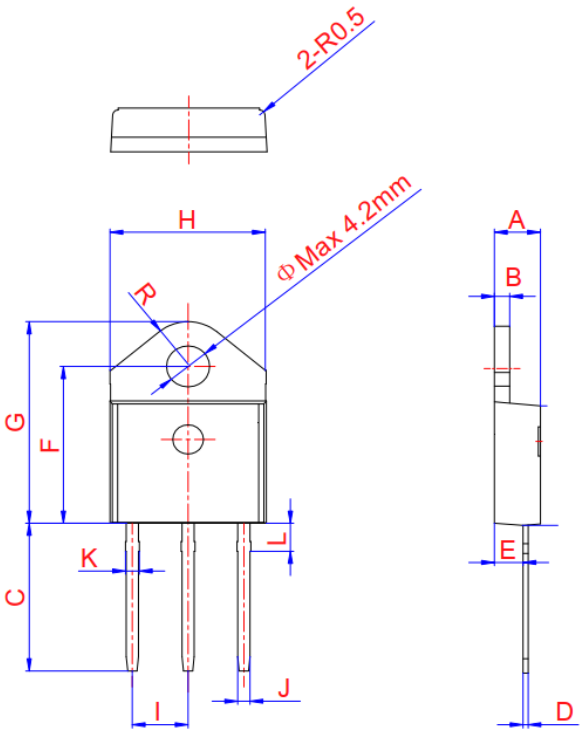


I_{GT},I_H,I_L(Tj)/I_{GT},I_H,I_L(Tj=25℃)

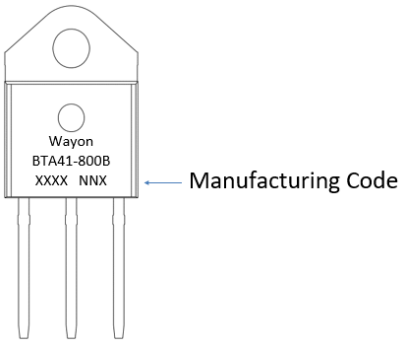


Outline Drawing- TO-3P Ins

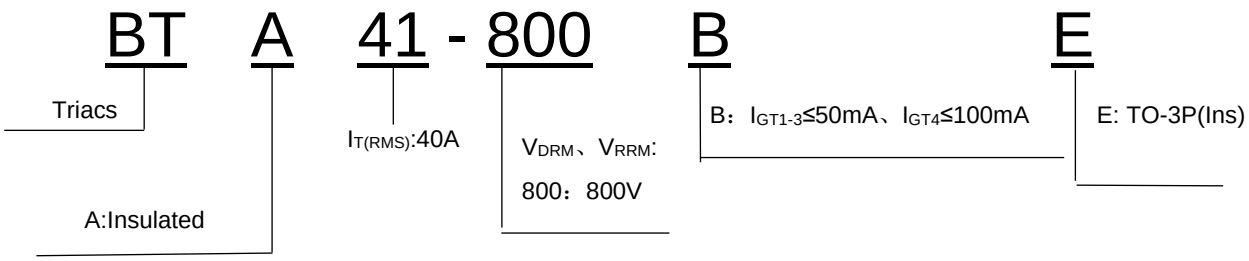
SYMBOL	MM		
	MIN	NOM	MAX
A	4.40	4.50	4.60
B	1.40	1.50	1.60
C	14.35	15.68	15.88
D	0.50	0.60	0.70
E	2.70	2.80	2.90
F	15.80	16.12	16.50
G	20.27	20.47	21.10
H	15.10	15.25	15.50
I	-	5.45	-
K	1.10	1.20	1.45
L	2.68	2.88	3.08
J	1.10	1.20	1.40
R	-	4.20	-



Marking Code:



Part Number System



Package Information

Package	Base qty.	Delivery mode
TO-3P(Ins)	30	Tube

Contact Information

No.1001, Shiwan(7) Road, Pudong District, Shanghai, P.R.China.201207
Tel: 86-21-50310888 Fax: 86-21-50757680 Email: market@way-on.com
WAYON website: **http://www.way-on.com**
For additional information, please contact your local Sales Representative.

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