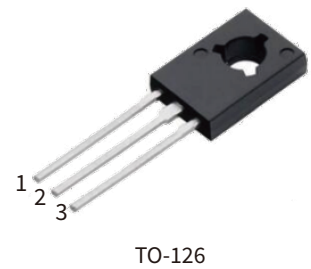


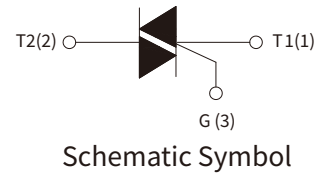
## FEATURES

- | NPNPN five layers glass passivated triacs with multi-layer backside metal
- | Package TO-126 is RoHS compliant.



## APPLICATIONS

- | Home appliances including motor control, heating control, bread maker



## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Repetitive peak off-state voltage ( $T_j=25^\circ\text{C}$ )	$V_{\text{DRM}}$	800	V
Repetitive peak reverse voltage ( $T_j=25^\circ\text{C}$ )	$V_{\text{RRM}}$	800	V
RMS on-state current ( $T_c=95^\circ\text{C}$ )	$I_{\text{T(RMS)}}$	4	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	$I_{\text{TSM}}$	25	
I2t value for fusing ( $t_p=10\text{ms}$ )	I2t	3.1	A2S
Critical rate of rise of on-state current ( $I_G=2 \cdot I_{\text{GT}}$ )	I - II - III	50	A/ $\mu\text{s}$
	IV	10	
Peak gate current	$I_{\text{GM}}$	2	A
Average gate power dissipation	$P_{\text{G(AV)}}$	0.5	W
Peak gate power	$P_{\text{GM}}$	5	W
Operating junction temperature range	$T_j$	-40~+125	°C
Storage junction temperature range	$T_{\text{STG}}$	-40~+150	

## ELECTRICAL CHARACTERISTICS (T<sub>j</sub>=25°C unless otherwise specified)

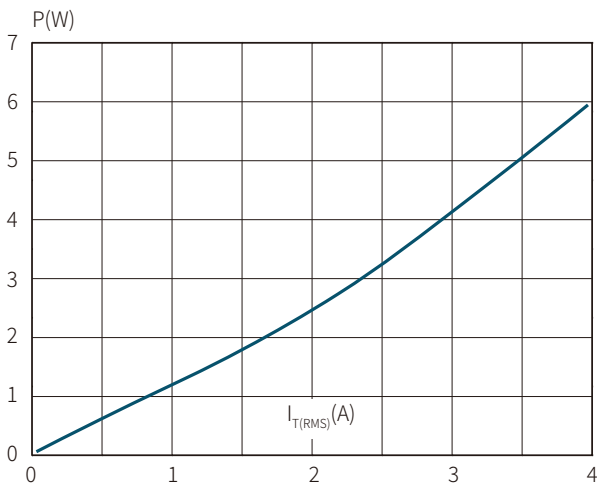
Symbol	Test Condition	Quadrant	Value		Unit
			D	E	
I <sub>GT</sub>	V <sub>D</sub> =12V, I <sub>T</sub> =0.1A T <sub>j</sub> =25°C, Fig. 6	I - II - III	≤5	≤10	mA
		IV	≤10	≤25	
V <sub>GT</sub>		I - II - III - IV	≤1.3		V
V <sub>GD</sub>	V <sub>D</sub> =V <sub>DRM</sub> , T <sub>j</sub> =125°C		≥0.2		V
I <sub>H</sub>	V <sub>D</sub> =12V, I <sub>T</sub> =0.1A T <sub>j</sub> =25°C, Fig. 6	I - II - III - IV	≤10	≤15	mA
I <sub>L</sub>		I - III - IV	≤10	≤15	
		II	≤15	≤20	
dV <sub>D</sub> /dt	V <sub>D</sub> =67%V <sub>DRM</sub> , T <sub>j</sub> =125°C		≥10	≥20	V/μs
V <sub>TM</sub>	I <sub>TM</sub> =6A, tp=380μs, Fig. 4		≤1.55		V
I <sub>DRM</sub>	V <sub>D</sub> =V <sub>DRM</sub> , V <sub>R</sub> =V <sub>RRM</sub>	T <sub>j</sub> =25°C	≤5		μA
I <sub>RRM</sub>		T <sub>j</sub> =125°C	≤0.5		mA

## THERMAL RESISTANCES

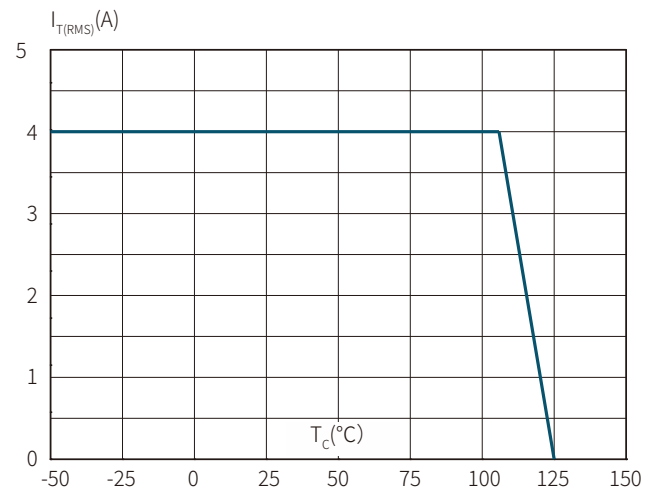
Symbol	Parameter	Value	Unit
R <sub>th(j-c)</sub>	Junction to case(AC)	3	°C/W
R <sub>th(j-a)</sub>	junction to ambient	100	°C/W

## PARAMETER CHARACTERISTIC CURVE

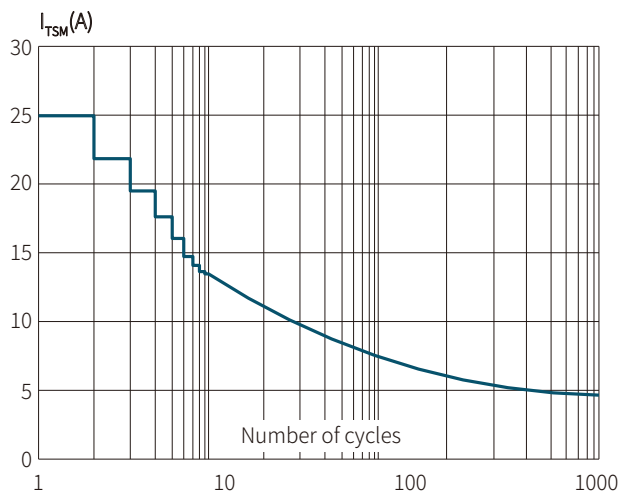
**FIG.1 Maximum power dissipation versus RMS on-state current**



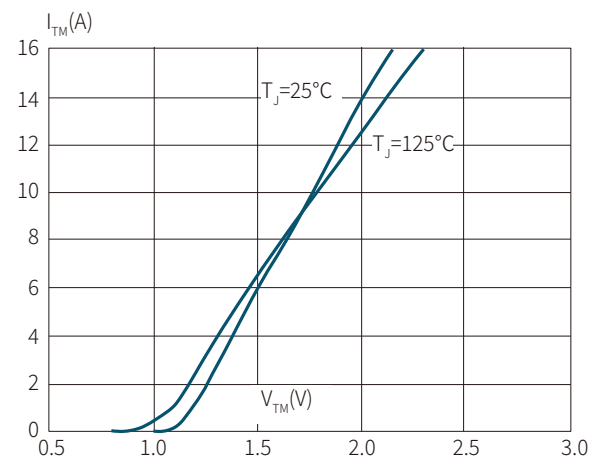
**FIG.2: RMS on-state current versus case temperature**



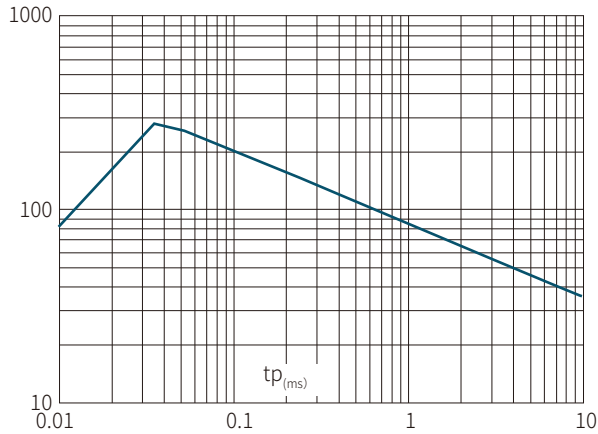
**FIG.3: Surge peak on-state current versus number of cycles**



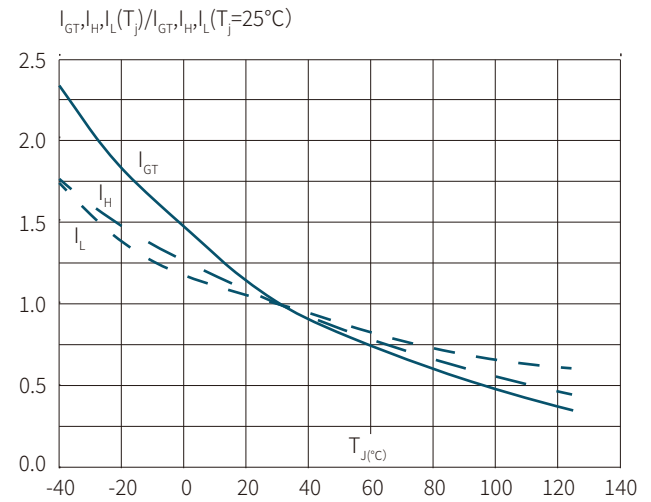
**FIG.4 On-state characteristics (maximum values)**



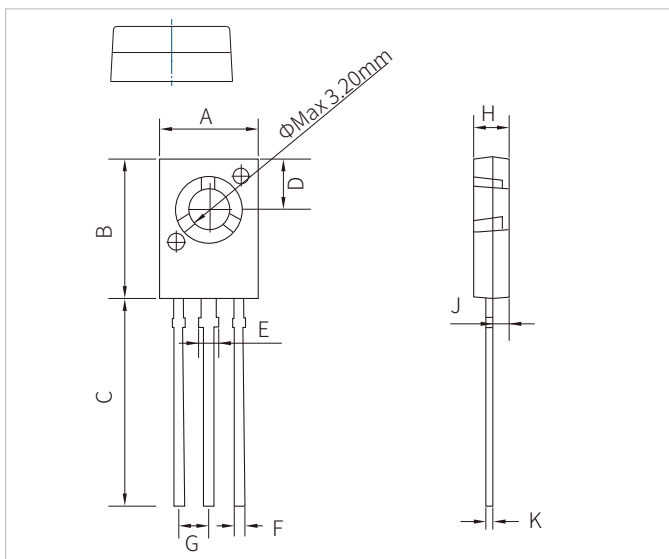
**FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 20\text{ms}$  and corresponding value of  $I^2t$  ( $dI/dt < 50\text{A}/\mu\text{s}$ )**



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



## TO-126 PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	7.40		7.80	0.291		0.307
B	10.6		11.2	0.417		0.441
C	15.3		16.3	0.602		0.642
D	3.90		4.10	0.154		0.161
E	1.17		1.47	0.046		0.058
F	0.66		0.86	0.026		0.034
G		2.29			0.090	
H	2.50		2.90	0.098		0.114
J	1.10		1.50	0.043		0.059
K	0.45		0.60	0.018		0.024

## ORDERING INFORMATION

Part Number	Package	Qty/pcs		
		Tube/Bag	Inner Box	Carton
BT134-800D(E)	TO-126	50(tube)	1000	10000
		500(bag)	10000	20000

To find your local partner within Semiwell' s website : [www.semiwell.com.cn](http://www.semiwell.com.cn)

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