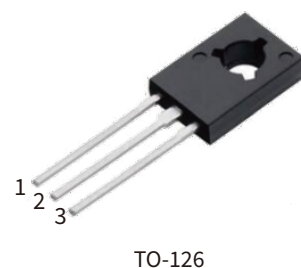


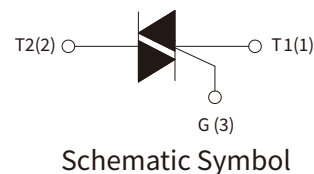
FEATURES

- | 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_{DRM}	600	V
Repetitive peak reverse voltage ($T_j=25^{\circ}\text{C}$)		V_{RRM}	600	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, $F=50\text{Hz}$)		I_{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	di/dt	50	A/ μs
	IV		10	
Peak gate current		I_{GM}	2	A
Average gate power dissipation		$P_{\text{G(AV)}}$	0.5	W
Peak gate power		P_{GM}	5	W
Operating junction temperature range		T_j	-40~+125	$^{\circ}\text{C}$
Storage junction temperature range		T_{STG}	-40~+150	

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

Symbol	Test Condition	Quadrant	Value		Unit
			D	E	
I _{GT}	V _D =12V, I _T =0.1A T _j =25°C, Fig. 6	I - II - III	≤5	≤10	mA
		IV	≤10	≤25	
V _{GT}			I - II - III-IV	≤1.3	
V _{GD}	V _D =V _{DRM} , T _j =125°C		≥0.2		V
I _H	V _D =12V, I _T =0.1A T _j =25°C, Fig. 6	I - II - III-IV	≤10	≤15	mA
I _L		I - III-IV	≤10	≤15	
		II	≤15	≤20	
dV _D /dt	V _D =67%V _{DRM} , T _j =125°C		≥10	≥20	V/μs
V _{TM}	I _{TM} =6A, tp=380μs, Fig. 4		≤1.55		V
I _{DRM}	V _D =V _{DRM} , V _R =V _{RRM}	T _j =25°C	≤5		uA
I _{RRM}		T _j =125°C	≤0.5		mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	Junction to case(AC)	3	$^{\circ}\text{C}/\text{W}$
$R_{th(j-a)}$	junction to ambient	100	$^{\circ}\text{C}/\text{W}$

PARAMETER CHARACTERISTIC CURVE

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

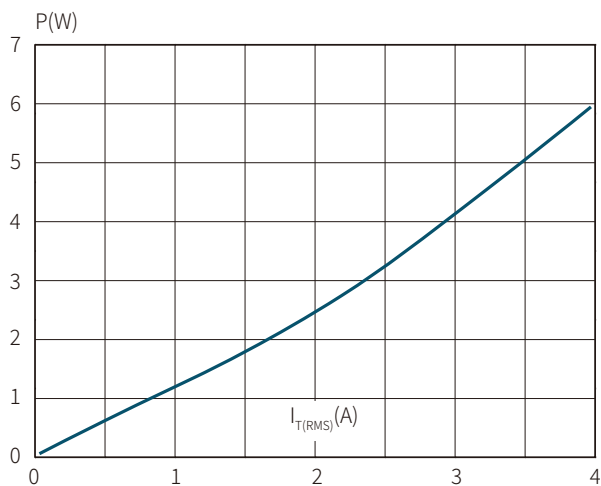


FIG.2: RMS on-state current versus case temperature

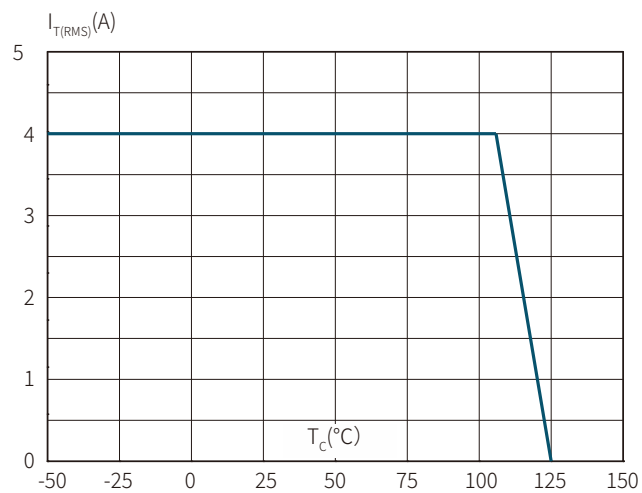


FIG.3: Surge peak on-state current versus number of cycles

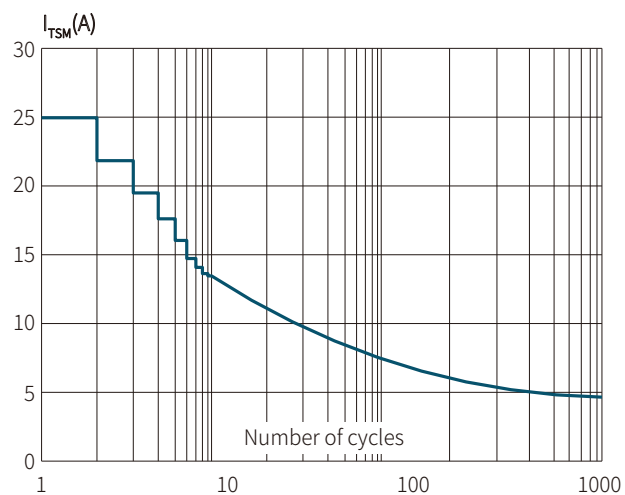


FIG.4 On-state characteristics (maximum values)

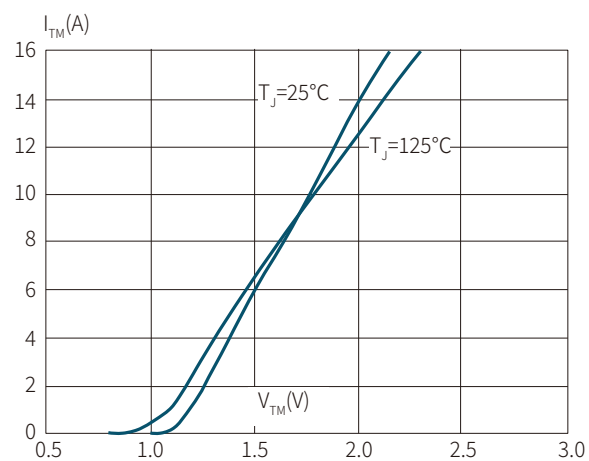


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$ and corresponding value of I^2t ($dI/dt < 50\text{A}/\mu\text{s}$)

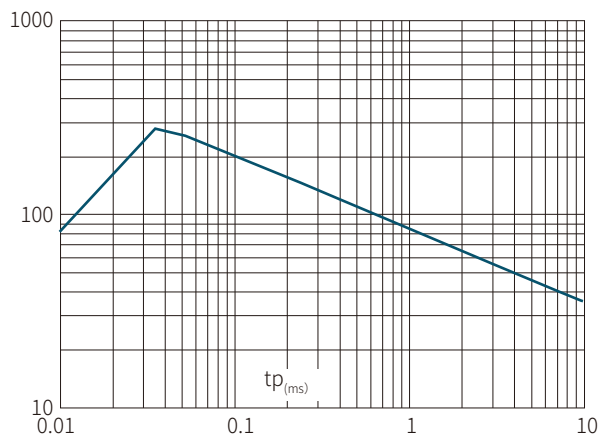
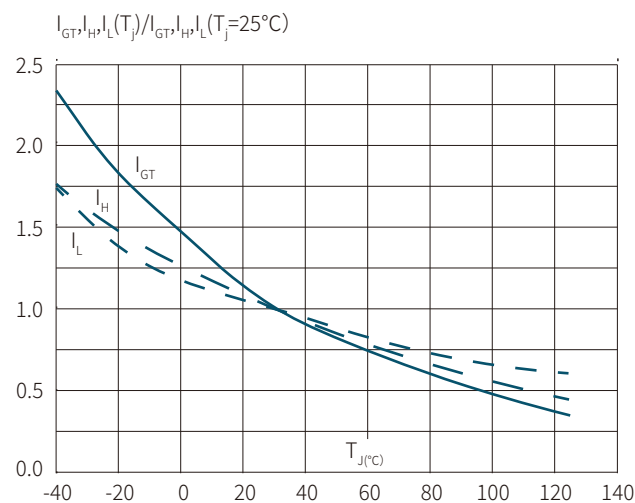
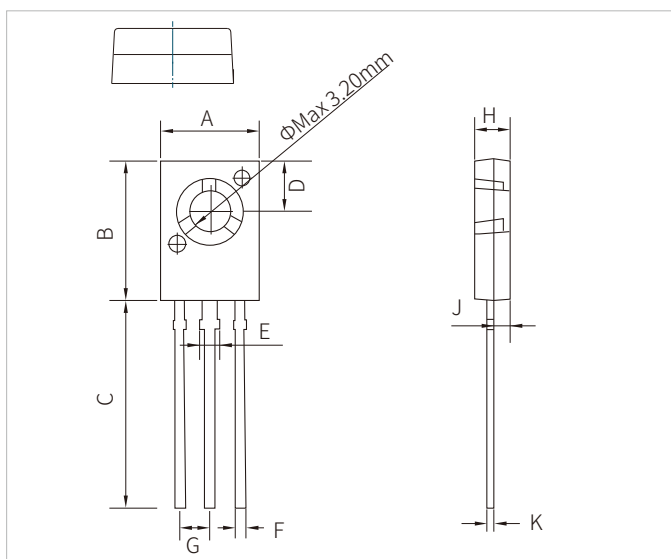


FIG.6 Relative variations of gate trigger current, holding current, latching current versus junction temperature



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
BT134-600D(E)	TO-126	50(tube)	1000	10000
		500(bag)	10000	20000

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