



## JST136K-800T 4A TRIAC

Rev.A.1.0

The JST136K-800T triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. Package TO-252 is RoHS compliant.

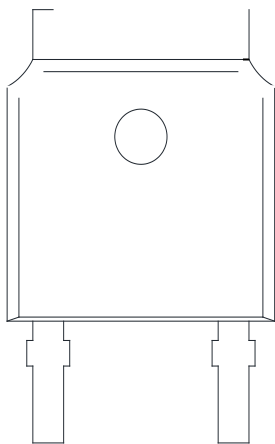
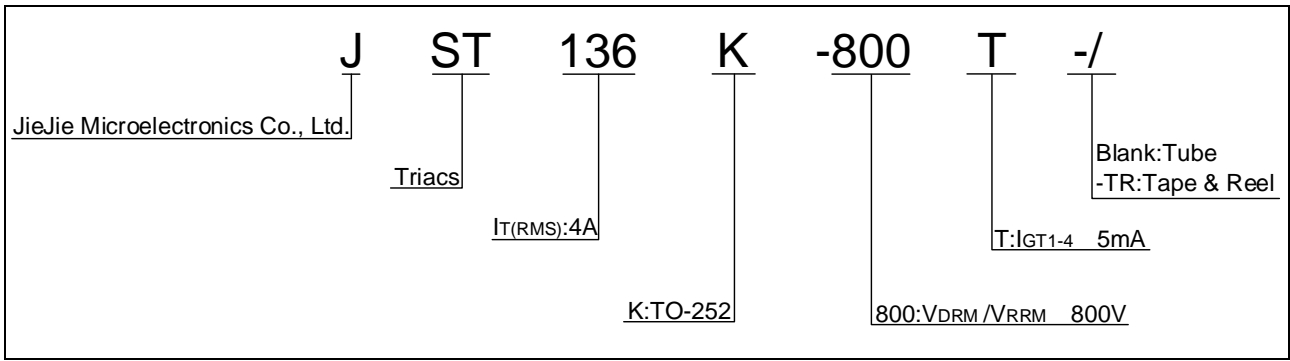
Parameter	Symbol	Value	Unit
Storage junction temperature range	$T_{stg}$	-40-150	
Operating junction temperature range	$T_j$	-40-125	
Repetitive peak off-state voltage ( $T_j=25^\circ\text{C}$ )	$V_{DRM}$	800	V
Repetitive peak reverse voltage ( $T_j=25^\circ\text{C}$ )	$V_{RRM}$	800	V
RMS on-state current ( $T_c=83^\circ\text{C}$ )	$I_{T(RMS)}$	4	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$ , $T_j=25^\circ\text{C}$ )	I		

(T<sub>j</sub>=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I <sub>GT</sub>	V <sub>D</sub> =12V R <sub>L</sub> =33	ALL	MAX.	5	mA
V <sub>GT</sub>		ALL	MAX.	1	V
V <sub>GD</sub>	V <sub>D</sub> =V <sub>DRM</sub> T <sub>j</sub> =125 R <sub>L</sub> =3.3K	ALL	MIN.	0.2	V
I <sub>L</sub>	I <sub>G</sub> =1.2I <sub>GT</sub>	-	MAX.	10	mA
		-		15	
I <sub>H</sub>	I <sub>T</sub> =100mA		MAX.	5	mA
dV/dt	V <sub>D</sub> =540V Gate Open T <sub>j</sub> =110		MIN.	20	V s
(dV/dt) <sub>c</sub>	(dI/dt) <sub>c</sub> =1.8A/ms, T <sub>j</sub> =110		MIN.	1	
t <sub>on</sub>	I <sub>G</sub> =10mA I <sub>A</sub> =200mA I <sub>R</sub> =20mA T <sub>j</sub> =25		TYP.	1	s
t <sub>off</sub>				12	

Symbol	Parameter		Value(MAX.)	Unit
V <sub>TM</sub>	I <sub>TM</sub> =5A t <sub>p</sub> =380 s	T <sub>j</sub> =25	1.7	V
V <sub>TO</sub>	Threshold voltage	T <sub>j</sub> =125	0.94	V
R <sub>D</sub>	Dynamic resistance	T <sub>j</sub> =125	124	
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	5	A
I <sub>RRM</sub>		T <sub>j</sub> =125	0.4	mA

Sym 0.48s37[=2 0.48 0.48 re f 390 330.12 98.761 0.48 8s31 108 >>BDC /TT0 1 Tf -0.001 T94



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

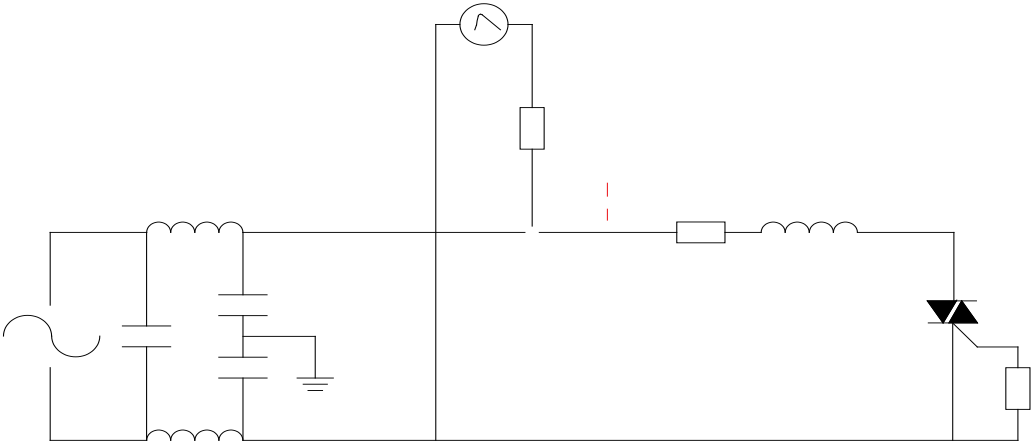


**FIG.2:** RMS on-state current versus case temperature

**FIG.7:** Relative variations of gate trigger current, holding current and latching current versus junction temperature



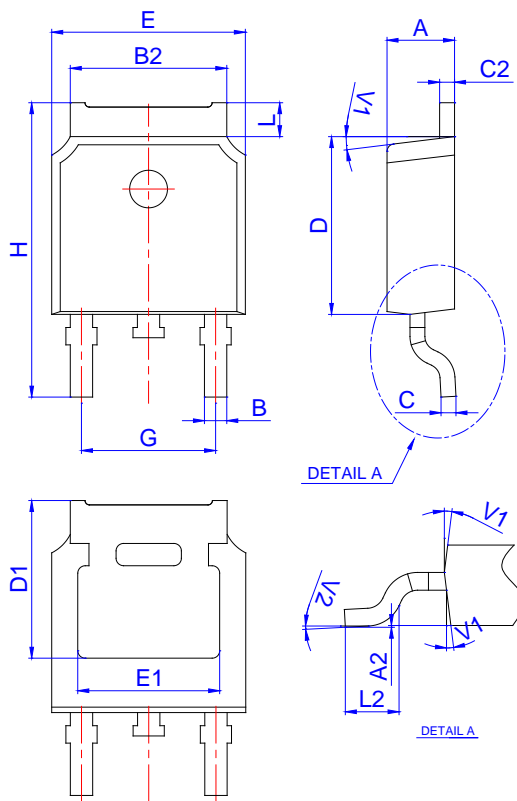
FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



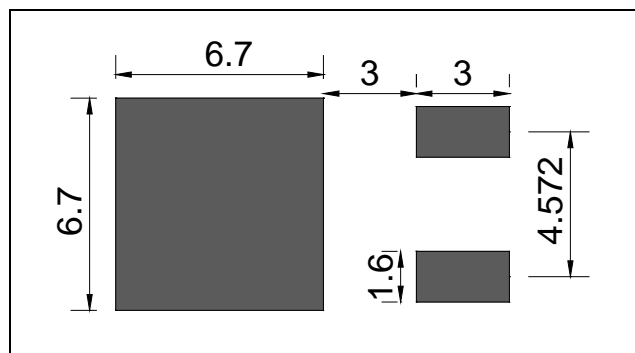
Order code	Voltage V <sub>DRM</sub> /V <sub>RRM</sub> (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- - -			
JST136K-800T	800	5	TO-252	80	Tube
JST136K-800T-TR				2,500	Tape & Reel

**Document Revision History**

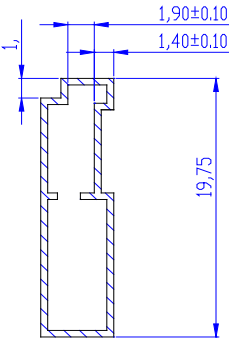
Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10		2.50	0.083		0.098
A2	0		0.15	0		0.006
B	0.66		0.86	0.026		0.034
B2	5.18		5.48	0.202		0.216
C	0.40		0.60	0.016		0.024
C2	0.44		0.58	0.017		0.023
D	5.90		6.30	0.232		0.248
D1	5.30REF			0.209REF		
E	6.40		6.80	0.252		0.268
E1	4.63			0.182		
G	4.47		4.67	0.176		0.184
H	9.50		10.70	0.374		0.421
L	1.09		1.21	0.043		0.048
L2	1.35		1.65	0.053		0.065
V1		7°			7°	
V2	0°		6°	0°		6°








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