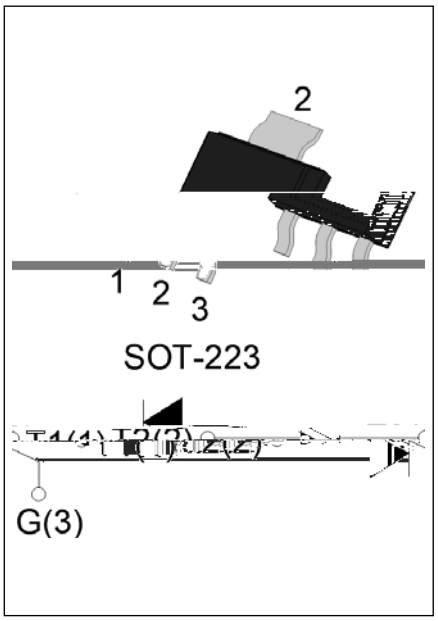
JST130V-600T 0.8A TRIAC

The JST130V-600T 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 SOT-223 is RoHS compliant.



Symbol	Value	Unit
[redacted]		A
V_{DRM} /V_{RRM}	600	V
[redacted]		mA

	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)	V_{DRM}	600	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	600	V
RMS on-state current ($T_C \leq$ 97)	$_{T(RMS)}$	0.8	A
p Non repetitive surge peak on-stat (full cycle , t_p=16.6ms , T =25)	I	10	A
2 I^2t value for fusing (t_p=10ms , T_j			^{2}s
Critical rate of rise of on-state current (I_G=2 I_{GT} , f=100Hz , T_j=125)	-	dI/dt	30	A/μs
	-		20	
Peak gate current (t =20μs , T =125)	I		1	A
Average gate power dissipation (T_j	$_{G(AV)}$		0.1	W
Peak gate power	P_{GM}		5	W
Peak pulse voltage FIG.8)	V_{pp}		2.5	kV
[redacted]				
1 p j j =25)	GM t		11 0.5	A

(T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D=12V R_L=33Ω	ALL	MAX.	5	mA
V_{GT}		ALL	MAX.	1.3	V
V_{GD}	V_D=V_{DRM} T_j=125 R_L=3.3kΩ	ALL	MIN.	0.2	V
I_L	I_G=1.2I_{GT}	- -	MAX.	5	mA
				15	
I_H	I_T=50mA		MAX.	5	mA
dV/dt	V_D=400V Gate Open T_j=110		MIN.	30	V/μs
(dV/dt)c	(dI/dt)c=0.3A/ms, T_j=110		MIN.	1	V/μs
t_{on}	I_G=10mA I_A=200mA I_R=20mA T_j=25		TYP.	2	μs
t_{off}				20	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM}=1A t_p=380μs	T_j=25	1.5	V
V_{TO}	Threshold voltage	T_j=125	1.01	V
R_D	Dynamic resistance	T_j=125	316	mΩ
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=125	0.2	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	25	/W
$R_{th(j-a)}$	junction to ambient (AC)	120	/W

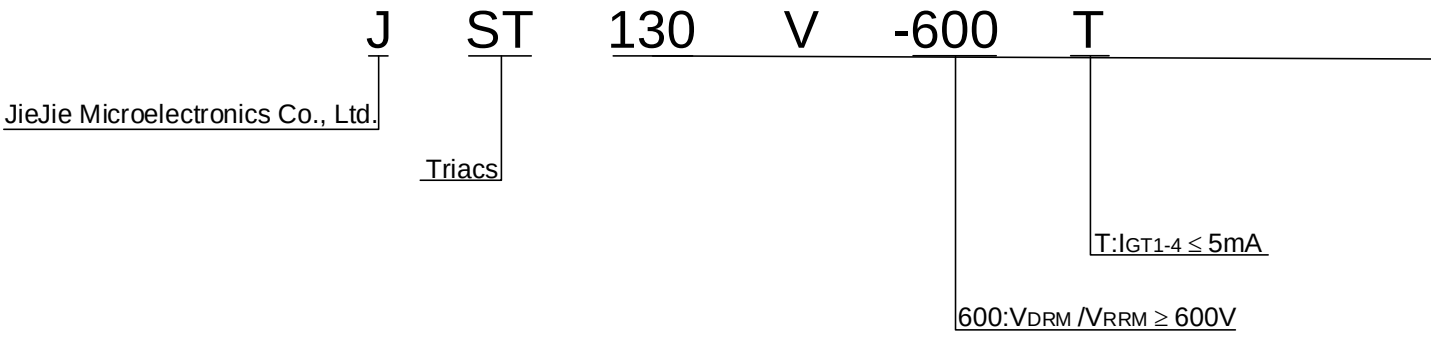

J
ST
130
V
-600
T
JieJie Microelectronics Co., Ltd.
Triacs
T:IGT1-4 ≤ 5mA
600:VDRM /VRRM ≥ 600V

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

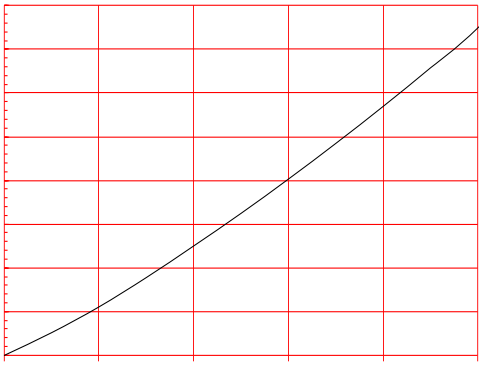
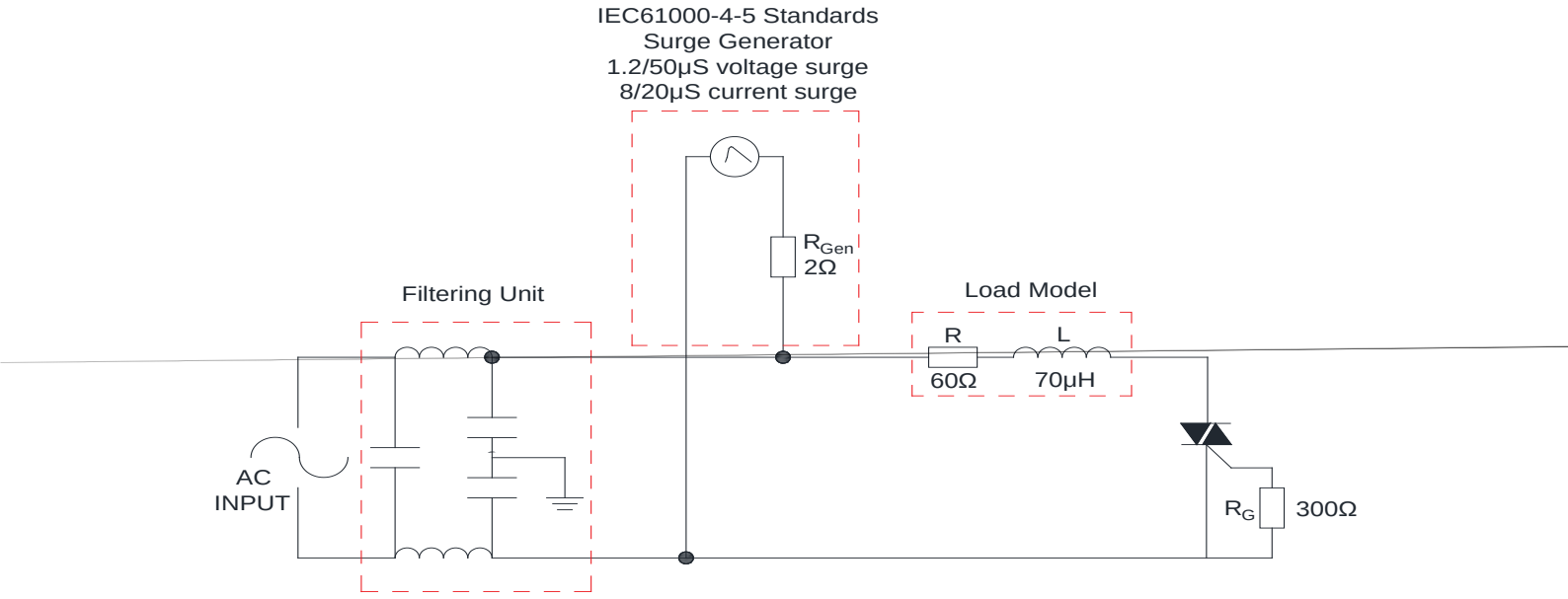


FIG.2: RMS on-state current versus case temperature

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_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- - -			
JST130V-600T	600	5	SOT-223	4,000	Tape & Reel

Document Revision History

Dimensions						
Ref.	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	MaW85 2

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