



JST130U-600T 0.8A TRIAC

Rev.A.2.1

DESCRIPTION:

The JST130U-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 TO-92 is RoHS compliant.

MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

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}	600	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	600	V
RMS on-state current ($T_c=51^\circ\text{C}$)	$I_{T(RMS)}$	0.8	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	10	

ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33$	ALL	MAX.	5	mA
V_{GT}		ALL	MAX.	1.3	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k$	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	

STATIC CHARACTERISTICS

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

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	65	/W
$R_{th(j-a)}$	junction to ambient (AC)	150	/W

ORDERING INFORMATION

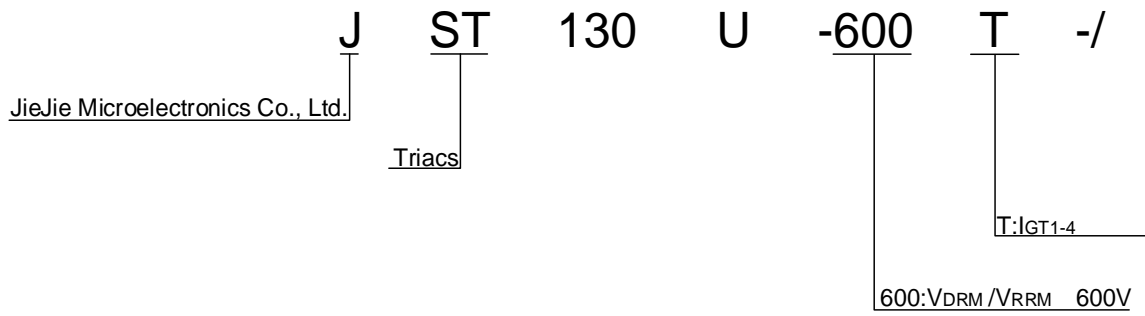


FIG.1: Maximum power dissipation versus RMS on-state current

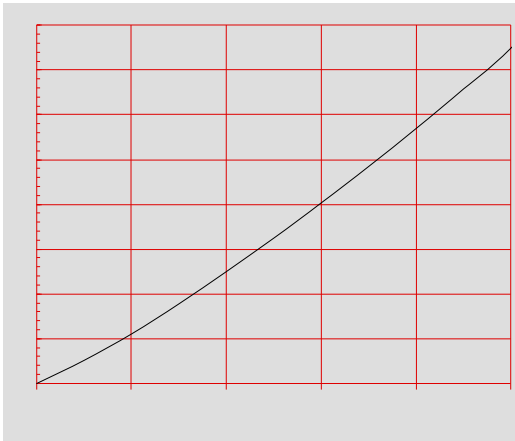


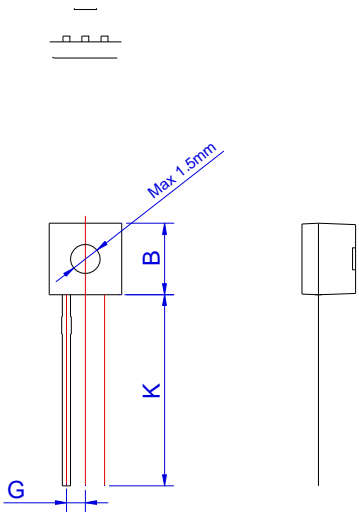
FIG.2: RMS on-state current versus case temperature

FIG.7 Test circuit fom

ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- - -			
JST130U-600T	600	5	TO-92	1,000	Bulk Pack
JST130U-600T-TR					

PACKAGE MECHANICAL DATA



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