



## 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/ $\mu s$
(dV/dt)c	(dI/dt)c=0.3A/ms, $T_j=110$		MIN.	1	V/ $\mu s$
$t_{on}$	$I_G=10mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	2	$\mu s$
$t_{off}$				20	

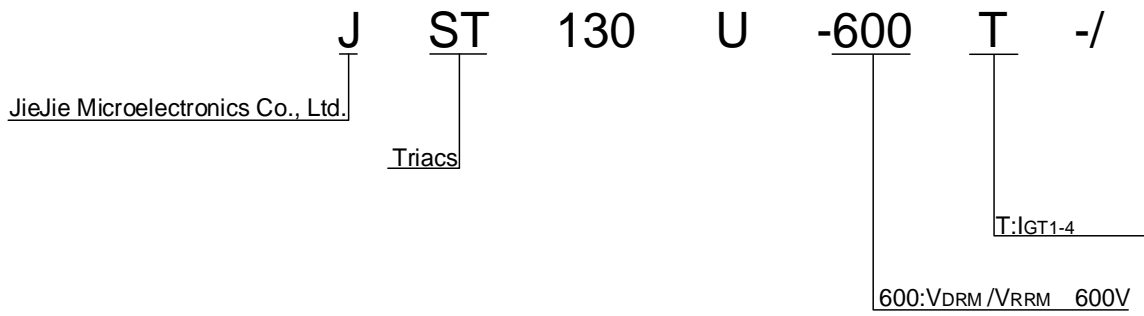
## STATIC CHARACTERISTICS

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	$\mu A$
$I_{RRM}$		$T_j=125$	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



ion versus RMS

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

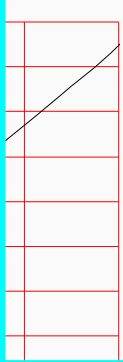
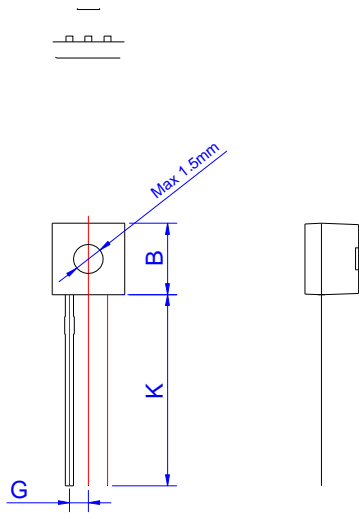


FIG.7 Test circuit fom

## 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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