



DESCRIPTION:

The JST134Q-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. From T2 terminals to external heatsink. Package TO-126 is RoHS compliant.

MAIN FEATURES

Symbol Value

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T <sub>stg</sub>	-40-150	
Operating junction temperature range	T <sub>j</sub>	-40-125	
Repetitive peak off-state voltage (T <sub>j</sub> =25 )	V <sub>DRM</sub>	600	V
Repetitive peak reverse voltage (T <sub>j</sub> =25 )	V <sub>RRM</sub>	600	V
RMS on-state current (T <sub>c</sub> 081 )	I <sub>T(RMS)</sub>	4	A
Non repetitive surge peak on-state current (full cycle , t <sub>p</sub> =20ms , T <sub>j</sub> =25 )	I <sub>TSM</sub>	25	A
Non repetitive surge peak on-state current (full cycle , t <sub>p</sub> =16.6ms , T <sub>j</sub> =25 )		27.5	
I <sup>2</sup> t value for fusing (t <sub>p</sub> =10ms , T <sub>j</sub> =25 )	I <sup>2</sup> t	3.125	A <sup>2</sup> s
Critical rate of rise of on-state current (I <sub>G</sub> =2xI <sub>GT</sub> , f=100Hz , T <sub>j</sub> =125 )	di/dt	30	A s
		20	
Peak gate current (t <sub>p</sub> =20 s , T <sub>j</sub> =125 )	I <sub>GM</sub>	2	A
Average gate power dissipation (T <sub>j</sub> =125 )	P <sub>G(AV)</sub>	0.5	W
Peak gate power	P <sub>GM</sub>	5	W
Peak pulse voltage (T <sub>j</sub> =25 ; non-repetitive,off-state;FIG.7)	V <sub>pp</sub>	16.5	V

## ELECTRICAL CHARACTERISTICS (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	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.	9	mA
				13	
$I_H$	$I_T=100mA$		MAX.	5	mA
$dV/dt$	$V_D=400V$ Gate Open $T_j=110$		MIN.	30	V s
$(dV/dt)_c$	$(dI/dt)_c=1.8A/ms$ , $T_j=110$		MIN.	1.2	9 V
$t_{on}$	$I_G=10mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	2	s
$t_{off}$				20	

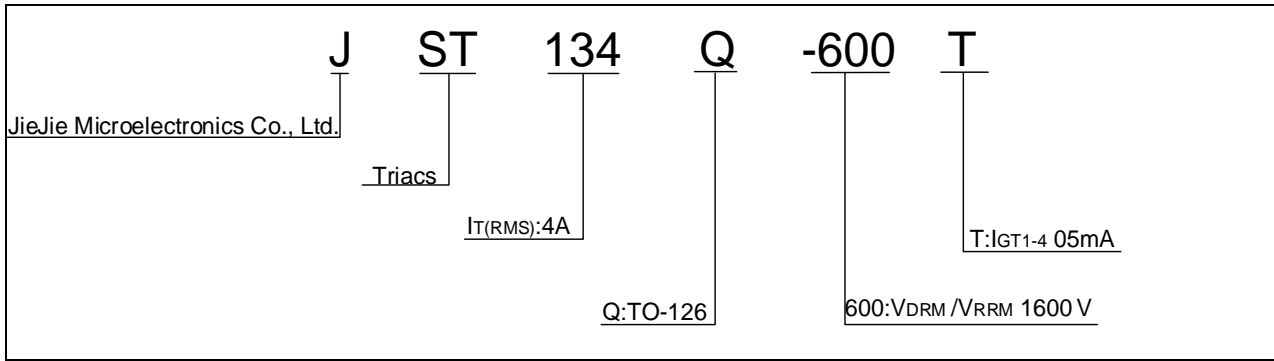
## STATIC CHARACTERISTICS

Symbol	Parameter		Value (MAX.)	Unit
$V_{TM}$	$I_{TM}=5A$ $t_p=380$ s	$T_j=25$	1.55	V
$V_{TO}$	Threshold voltage	$T_j=125$	0.92	V
$R_D$	Dynamic resistance	$T_j=125$	107	P
$I_{DRM}$	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	A
$I_{RRM}$		$T_j=125$	0.25	mA

## THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	7.5	/W
$R_{th(j-a)}$	junction to ambient (AC)	150	/W

### ORDERING INFORMATION



### MARKING

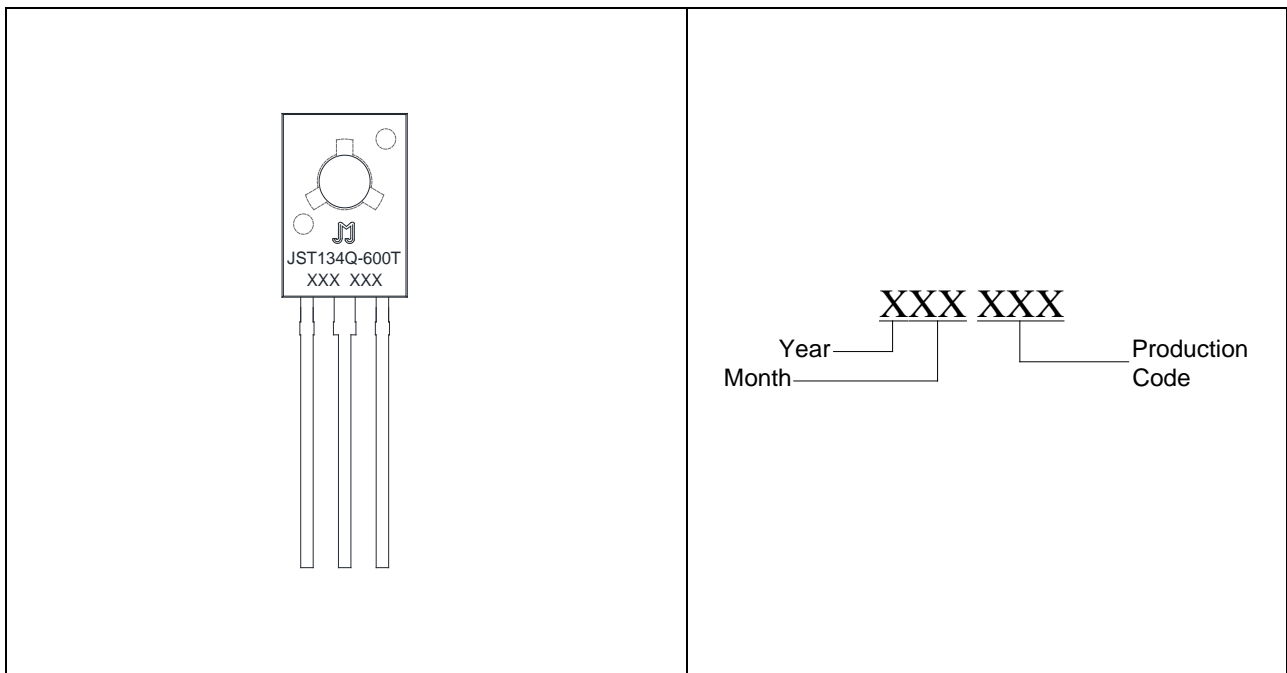


FIG.1 Maximum power dissipation versus RMS on-state current

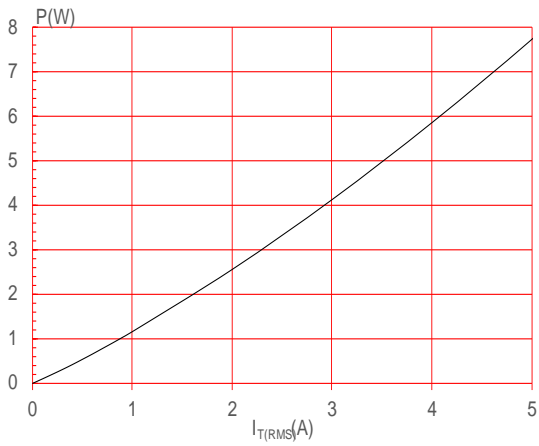


FIG.3: Surge peak on-state current versus number of cycles

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

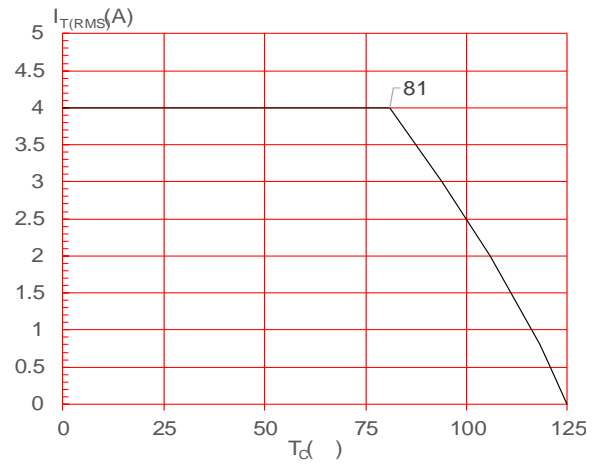
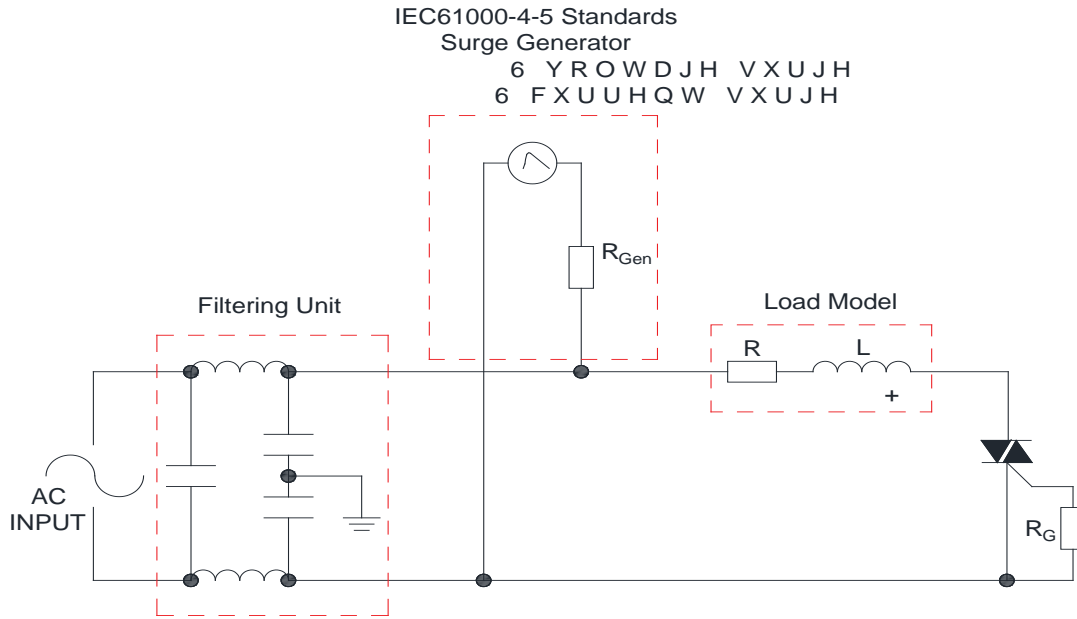


FIG.4: On-state characteristics

FIG.7 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



## SHAPING AND SOLDERING PARAMETERS

Refer to ÉInstructions for installation of plastic-sealed in-line power devices Êreleased by JieJie.

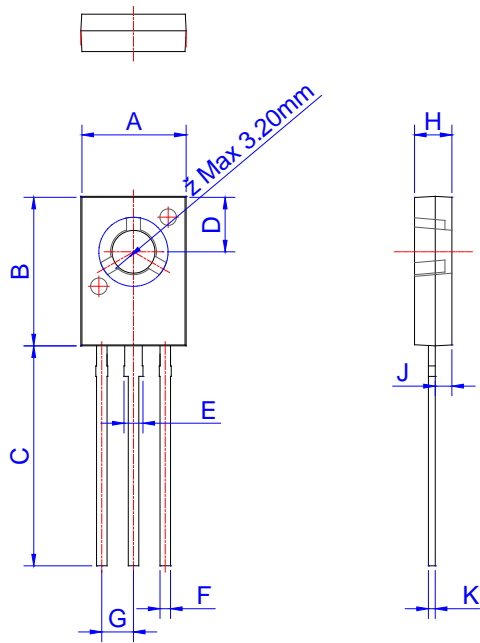
## ORDERING INFORMATION

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- - -			
JST134Q-600T	600	5	TO-126	500	Bulk Pack

## Document Revision History

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

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	2.15		2.45	0.085		0.096
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

DELIVERY MODE

PACKAGE	OUTLINE	BAG (PCS)	INNER BOX (PCS)	CARTON BOX (PCS)
TO-126	Bulk Pack	500	2,000	10,000

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