



## JST134Q-600D 4A TRIACs

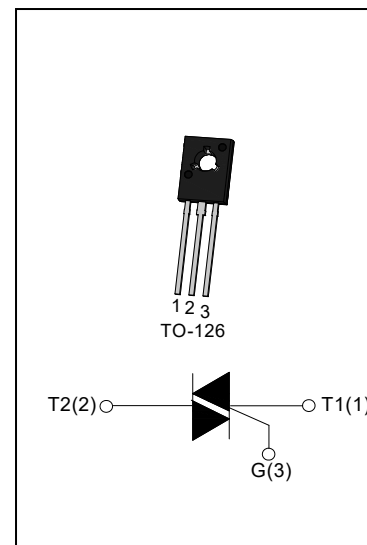
Rev.1

### DESCRIPTION:

JST134Q-600D triacs with low holding and latching current are especially recommended for use on middle and small resistance type power load. Package TO-126 is RoHS compliant. (2011/65/EU)

### MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	4	A
$V_{DRM} / V_{RRM}$	600	V



### ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Storage junction temperature range		$T_{stg}$	-40 - 150	°C
Operating junction temperature range		$T_j$	-40 - 125	°C
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	TO-126 ( $T_C=97^\circ\text{C}$ )	$I_{T(RMS)}$	4	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)		$I_{TSM}$	25	A
$I^2t$ value for fusing ( $t_p = 10\text{ms}$ )		$I^2t$	3.1	$\text{A}^2\text{s}$
Critical rate of rise of on-state current ( $I_G = 2 \times I_{GT}$ )	I - II - III	$di/dt$	50	$\text{A}/\mu\text{s}$
	IV		10	
Peak gate current		$I_{GM}$	2	A
Average gate power dissipation		$P_{G(AV)}$	0.5	W
Peak gate power		$P_{GM}$	5	W

ELECTRICAL CHARACTERISTICS ( $T_j=25^{\circ}\text{C}$  unless otherwise specified)

Symbol	Test Condition	Quadrant	Value			Unit
			MIN.	TYP.	MAX.	
$I_{GT}$	$V_D=12\text{V } R_L=33\Omega$	I	-	1.5	5	mA
		II	-	2.5	5	
		III	-	2.5	5	
		IV	-	6	10	
$V_{GT}$		ALL	-	-	1.3	V
$V_{GD}$	$V_D=V_{DRM} T_j=125^{\circ}\text{C}$ $R_L=3.3\text{K}\Omega$	ALL	0.2	-	-	V
$I_L$	$I_G=1.2I_{GT}$	I -III-IV	-	-	10	mA
		II	-	-	15	
$I_H$	$I_T=100\text{mA}$		-	-	10	mA
dv/dt	$V_D=2/3V_{DRM}$ Gate Open $T_j=125^{\circ}\text{C}$		50	-	-	V/ $\mu\text{s}$
(dv/dt) <sub>c</sub>	(di/dt) <sub>c</sub> =1.1A/ms $T_j=125^{\circ}\text{C}$		1	-	-	V/ $\mu\text{s}$

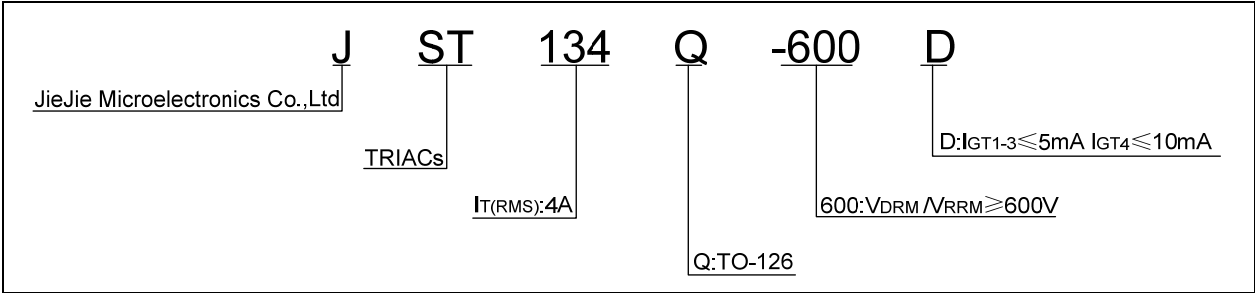
## STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
$V_{TM}$	$I_{TM}=5\text{A } t_p=380\mu\text{s}$	$T_j=25^{\circ}\text{C}$	1.7	V
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25^{\circ}\text{C}$	5	$\mu\text{A}$
$I_{RRM}$		$T_j=125^{\circ}\text{C}$	0.5	mA

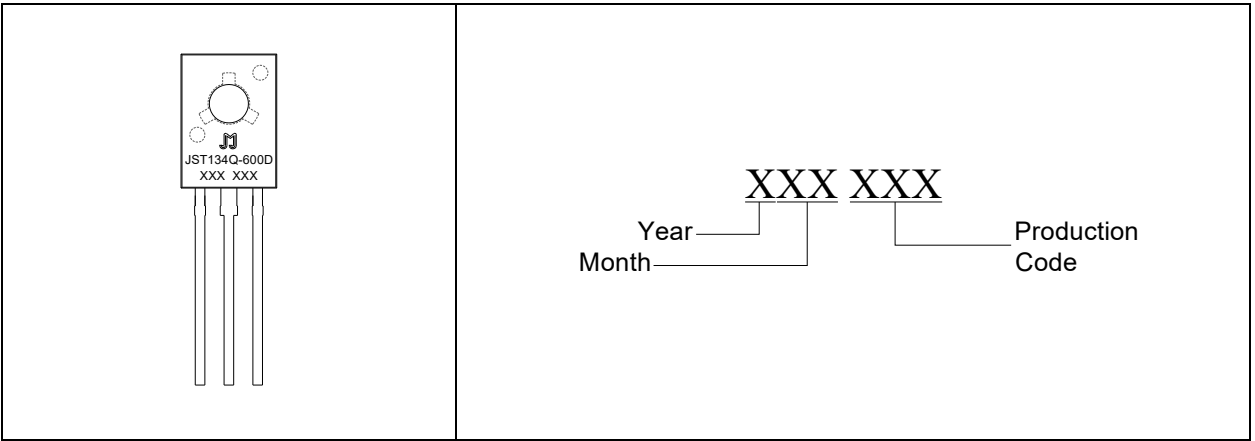
## THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	TO-126	4.1	$^{\circ}\text{C/W}$

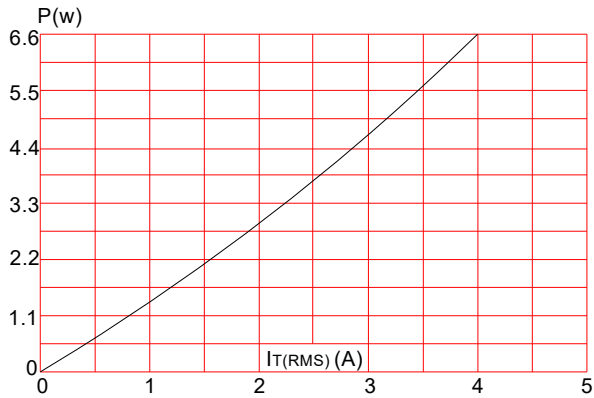
ORDERING INFORMATION



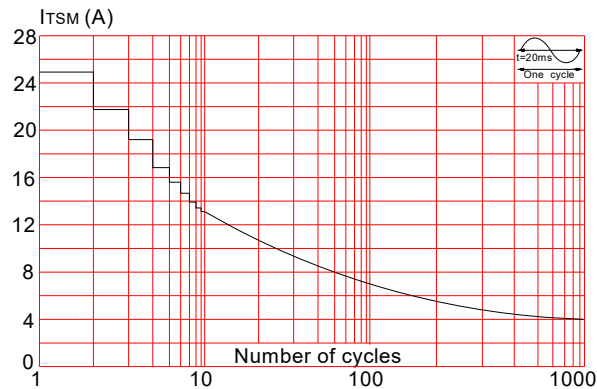
MARKING



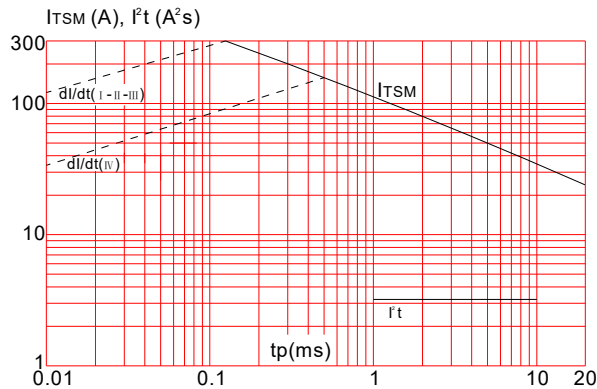
**FIG.1:** Maximum power dissipation versus RMS on-state current



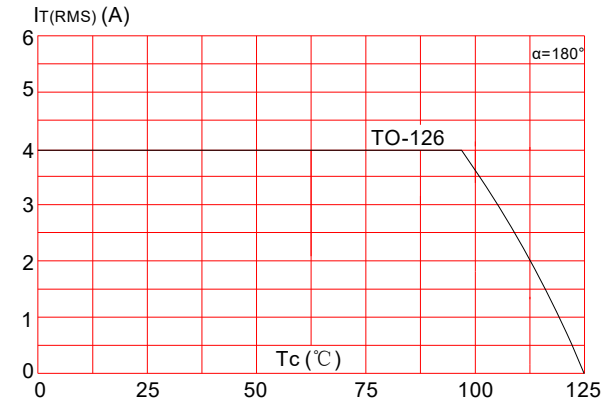
**FIG.3:** Surge peak on-state current versus number of cycles



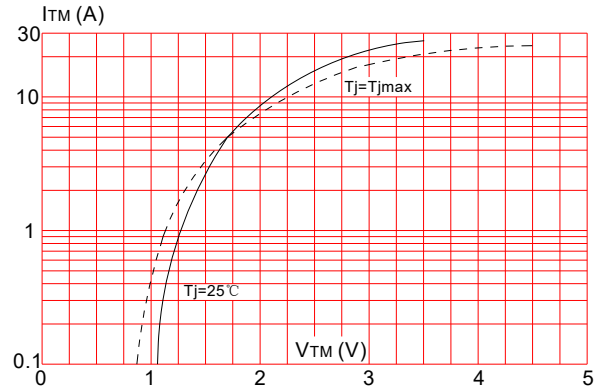
**FIG.5:** Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 20\text{ms}$  and corresponding value of  $I^2t$  ( I - II - III:  $dI/dt < 50\text{A}/\mu\text{s}$ ; IV:  $dI/dt < 10\text{A}/\mu\text{s}$ )



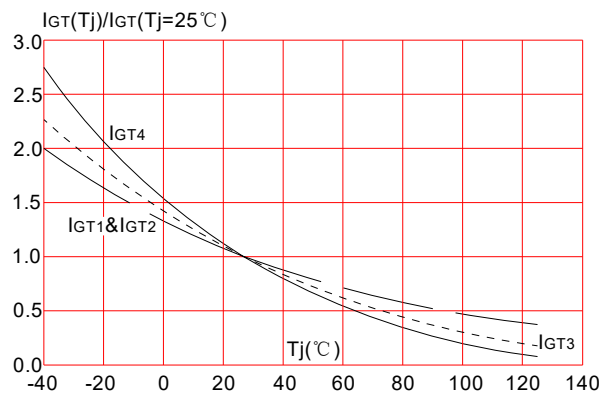
**FIG.2:** RMS on-state current versus case temperature



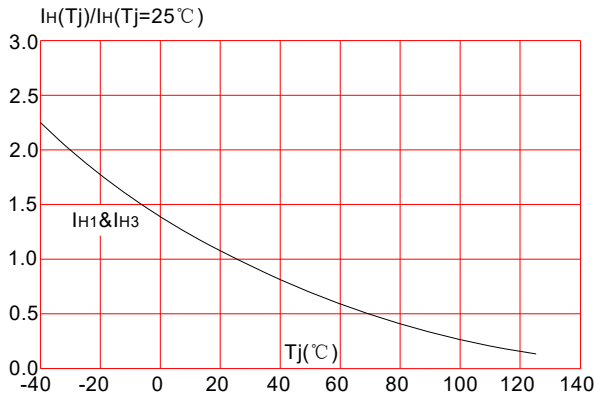
**FIG.4:** On-state characteristics (maximum values)



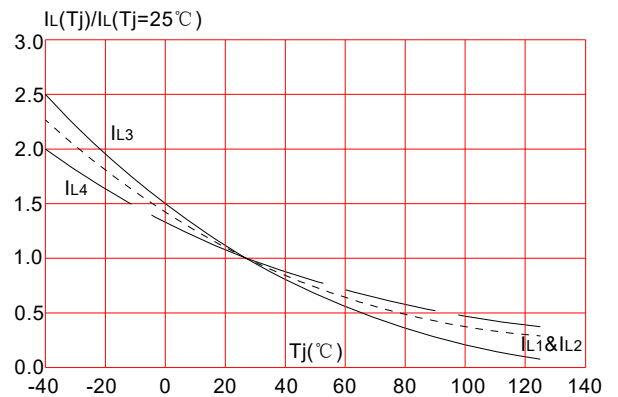
**FIG.6:** Relative variations of gate trigger current versus junction temperature



**FIG.7:** Relative variations of holding current versus junction temperature



**FIG.8:** Relative variations of latching current versus junction temperature



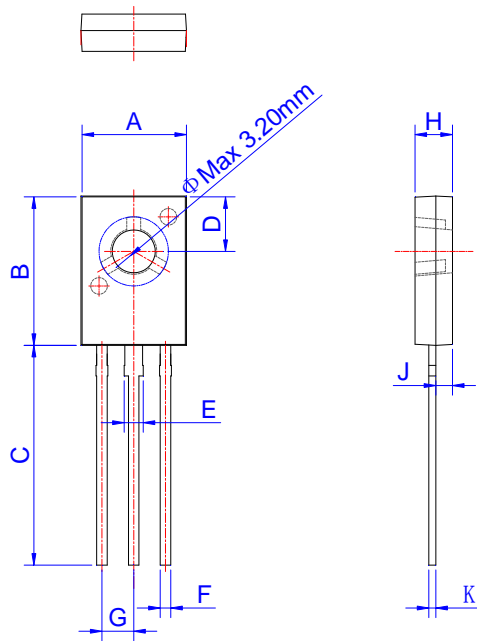
**ORDERING INFORMATION**

Order code	Voltage V <sub>DRM</sub> /V <sub>RPM</sub> (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		I - II - III	IV			
JST134Q-600D	600	5	10	TO-126	500	Bulk Pack

**Document Revision History**

Date	Revision	Changes
May 26, 2022	1	Last update

**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		2.29			0.090	
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



Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co.,Ltd assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement. Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document supersedes and replaces all information previously supplied.

 is a registered trademark of Jiangsu JieJie Microelectronics Co.,Ltd.  
Copyright ©2022 Jiangsu JieJie Microelectronics Co.,Ltd. Printed All rights reserved.