

JST08K-600C 8A TRIAC

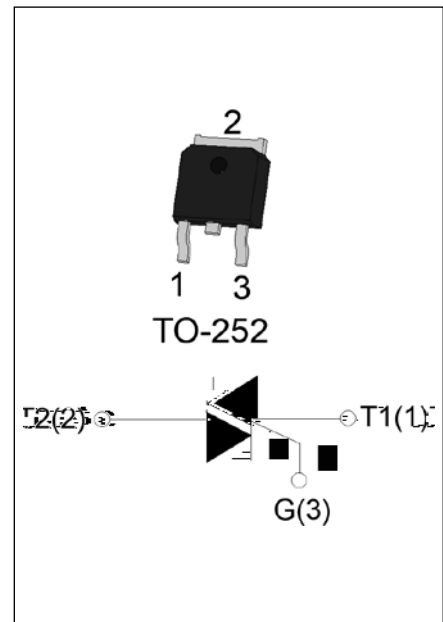
Rev.A.1.1

DESCRIPTION:

The JST08K-600C 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-252 is RoHS compliant.

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	8	A
V_{DRM}/V_{RRM}	600	V
$I_{GT} / / /$	25/25/25/50	mA



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)		V _{DRM}	600	V
Repetitive peak reverse voltage (T _j =25)		V _{RRM}	600	V
RMS on-state current (T _C ≤ 91)		I _{T(RMS)}	8	A
Non repetitive surge peak on-state current (full cycle , t _p =20ms , T _j =25)		I _{TSM}	80	A
Non repetitive surge peak on-state current (full cycle , t _p =16.6ms , T _j =25)			88	
I ² t value for fusing (t _p =10ms , T _j =25)		I ² t	32	A ² s
Critical rate of rise of on-state current (I _G =2×I _{GT} , f=100Hz , T _j =125)	-	di/dt	80	A / s
	-		40	
Peak gate current (t _p =20 s , T _j =125)		I _{GM}	4	A
Average gate power dissipation (T _j =125)		P _{G(AV)}	0.5	W
Peak gate power		P _{GM}	10	W
Peak pulse voltage (T _j =25 ; non-repetitive,off-state;FIG.8)		V _{PP}	1.5	kV

ELECTRICAL CHARACTERISTICS (unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I _{GT}	V _D =12V R _L =33	- -	MAX.	25	mA
				50	
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.	40	mA
				80	
I _H	I _T =200mA		MAX.	30	mA
dV/dt	V _D =400V Gate Open T _j =125		MIN.	800	V s
(dV/dt) _c	(dI/dt) _c =3.5A/ms, T _j =125		MIN.	6	
t _{on}	I _G =80mA I _A =400mA I _R =40mA T _j =25		TYP.	5	s
t _{off}				30	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=11A$ $t_p=380$ s	$T_j=25$	1.5	V
V_{TO}	Threshold voltage	$T_j=125$	0.8	V
R_D	Dynamic resistance	$T_j=125$	44	
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)	3	/W
$R_{th(j-a)}$	junction to ambient (AC)	100	/W

ORDERING INFORMATION

J	ST	08	K	-600	C	-/
Jie Microelectronics Co., Ltd.	Triacs	$I_{T(RMS)}: 8A$	K: TO-252	600: $V_{DRM} / V_{RRM} \geq 600V$	C: $I_{GT1-3} \leq 25mA$ $I_{GT4} \leq 50mA$	Blank: Tube -TR: Tape & Reel

MARKING66 1208.651 57.542 | 48 60 | 68 77 | -1.11K

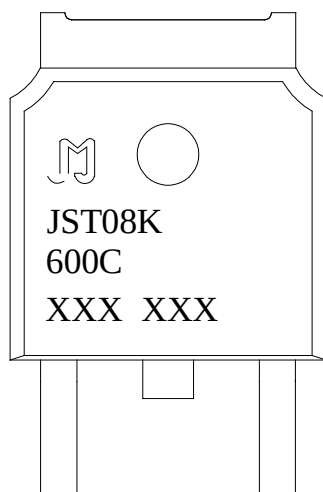


FIG.1: Maximum power dissipation versus RMS on-state current

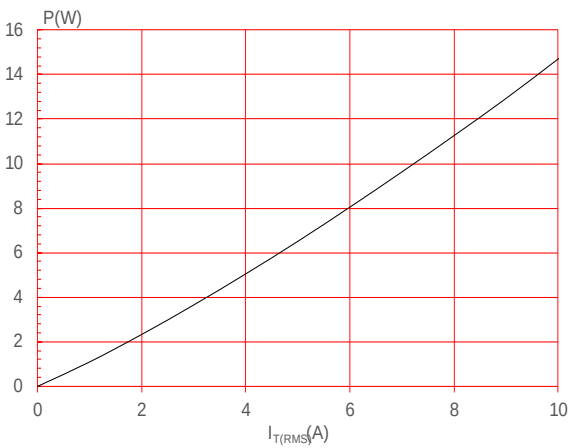


FIG.2: RMS on-state current versus case temperature

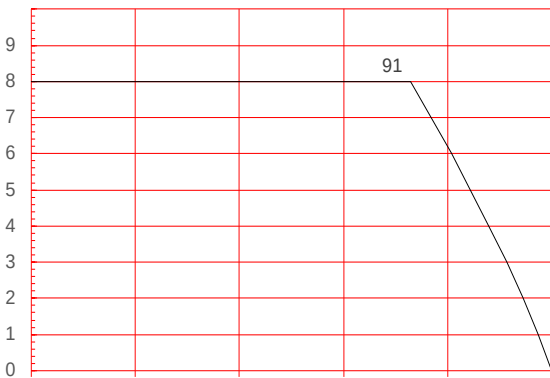


FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

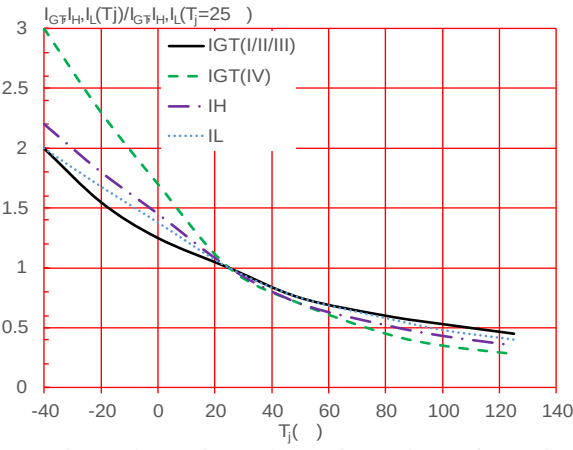
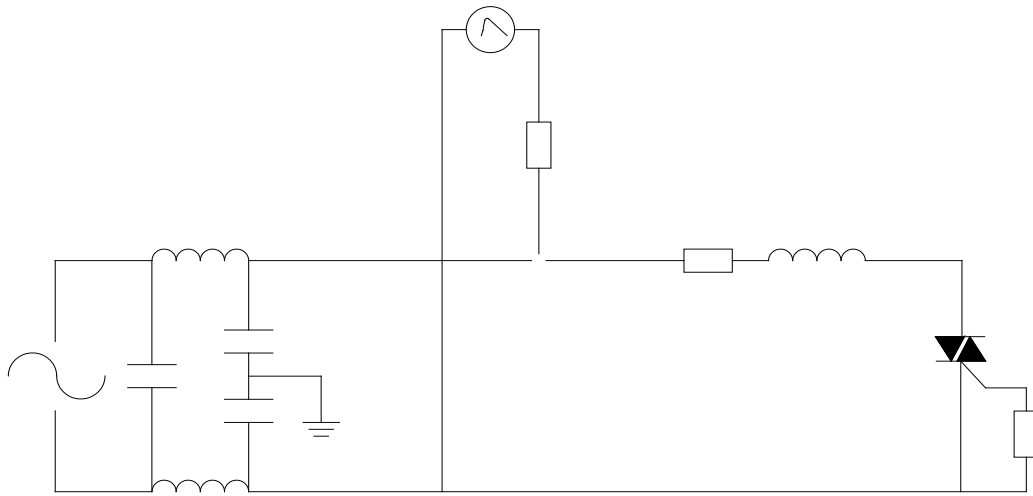


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards

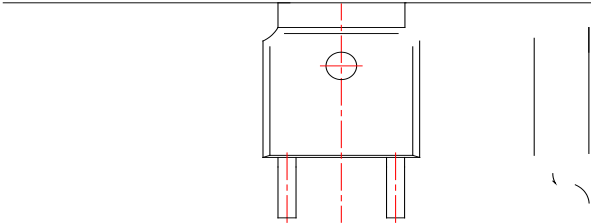


ORDERING INFORMTON

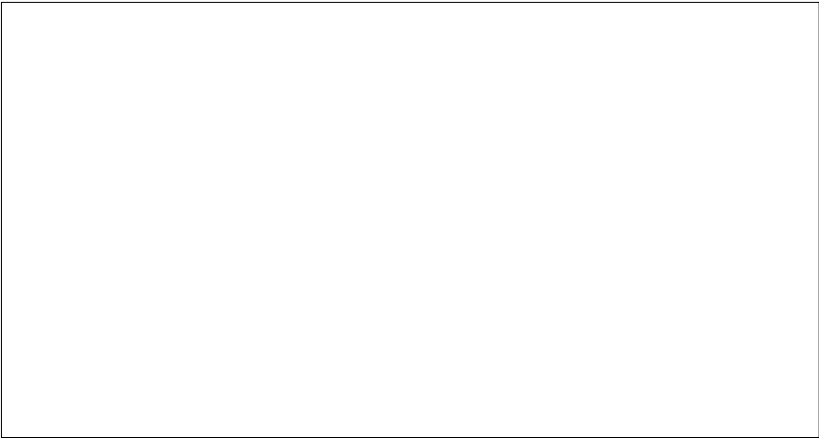
Order coe	Voltage V _{DRM} /V _{RRM} (V)	IGT(m)		Packag	Base qty. (p	Deliver mode
		- -				

JST08K-600C

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10		2.50	0.083		0.098
A2	0		0.15	0		0.006
B	0.66		0.86	0.026		0.034
B2	5.18		5.48	0.202		0.216
C	0.40		0.60	0.016		0.024
C2	0.44		0.58	0.017		0.023
D	5.90		6.30	0.232		0.248
D1						
E	6.40		6.80	0.252		0.268
E1	4.63			0.182		
G	4.47		4.67	0.176		0.184
G1	2.18		2.38	0.086		0.094
L	1.09		1.21	0.043		0.048
L2	1.35		1.65	0.053		0.065



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