

JST12E-600B 12A TRIAC

Rev.A.1.1

## DESCRIPTION:

The JST12E-600B 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-263 is RoHS compliant.

## MAIN FEATURES

## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	$T_{stg}$	-	

ELECTRICAL CHARACTERISTICS (unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I <sub>GT</sub>	V <sub>D</sub> =12V R <sub>L</sub> =33	- -	MAX.	50	mA
				70	
V <sub>GT</sub>		ALL	MAX.	1	V
V <sub>GD</sub>	V <sub>D</sub> =V <sub>DRM</sub> T <sub>j</sub> =125 R <sub>L</sub> =3.3k	ALL	MIN.	0.2	V
I <sub>L</sub>	I <sub>G</sub> =1.2I <sub>GT</sub>	- -	MAX.	50	mA
				100	
I <sub>H</sub>	I <sub>T</sub> =500mA		MAX.	60	mA
V/dt	V <sub>D</sub> =400V Gate Open T <sub>j</sub> =125		MIN.	1200	V s
(di/dt) <sub>c</sub>	(di/dt) <sub>c</sub> =5.3A/ms, T <sub>j</sub> =125		MIN.	12	9 V
t <sub>on</sub>	I <sub>G</sub> =80mA I <sub>A</sub> =400mA I <sub>R</sub> =40mA T <sub>j</sub> =25		TYP.	5	s
t <sub>off</sub>				30	

DYNAMIC CHARACTERISTICS

Symbol	Parameter	Value(MAX.)	Unit
V <sub>TM</sub>			



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

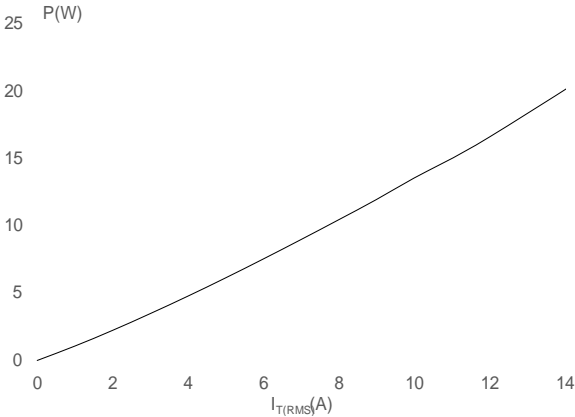
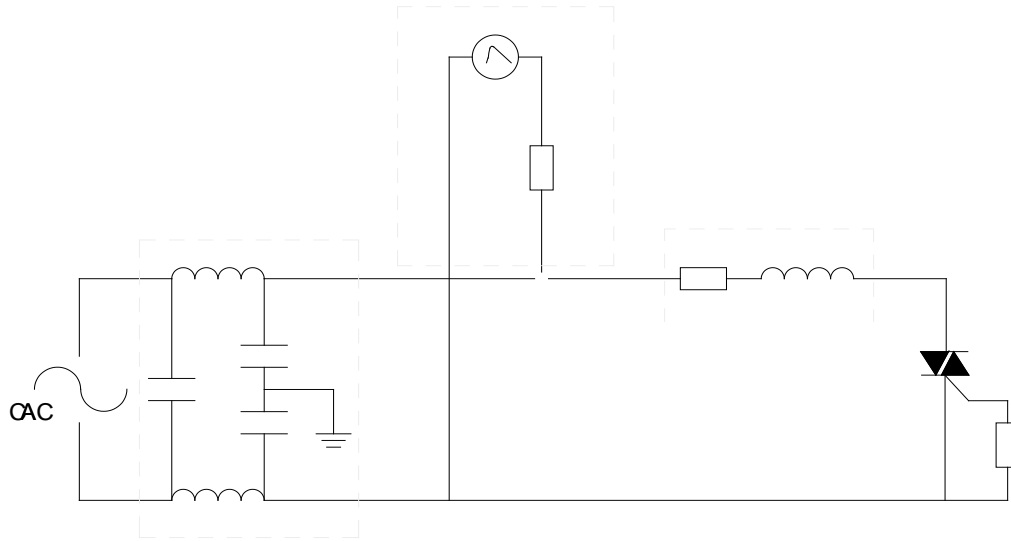


FIG.2: RMS on-state current versus case temperature

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



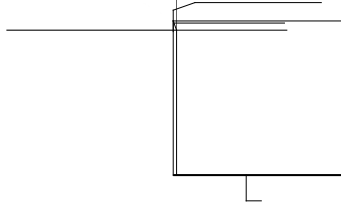
## ORDERING INFORMATION

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		H- I- J	K			
JST12E-600B	600	50	70	TO-263	50	Tube
JST12E-600B-TR					800	Tape & Reel

## Document Revision History

Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated
Oct.20, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	9.40		9.60	0.370		0.378
D	2.40			0.094		
E	1.20		1.50	0.047		0.059
F	0.75		0.85	0.029		0.033

DELIVERY MODE



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