

**JST30E-600BW 30A TRIAC**

Rev.A.1.1

The JST30E-600BW 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. JST30E-600BW snubberless triac is especially recommended for use on inductive loads. Package TO-263 is RoHS compliant.

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 ( $T_c=96^\circ\text{C}$ )	$I_{T(RMS)}$	30	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$ , $T_j=25^\circ\text{C}$ )	$I_{TSM}$	300	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$ , $T_j=25^\circ\text{C}$ )		330	
$I^2t$ value for fusing ( $t_p=10\text{ms}$ , $T_j=25^\circ\text{C}$ )	$I^2t$	450	$\text{A}^2$

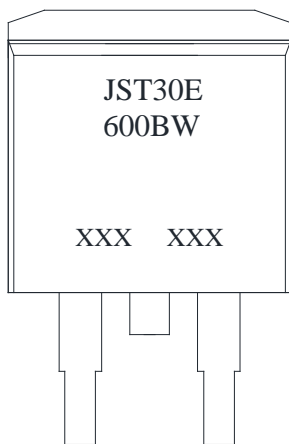
Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG.8)	$V_{pp}$	2.5	kV
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( $T_j=25$  unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D=12V R_L=33$	- -	MAX.	50	mA
$V_{GT}$		- -	MAX.	1.3	V
$V_{GD}$	$V_D=V_{DRM} T_j=125$ $R_L=3.3k$	- -	MIN.	0.15	V
$I_L$	$I_G=1.2I_{GT}$	-	MAX.	80	mA
				100	
$I_H$	$I_T=500mA$		MAX.	75	mA
dV/dt	$V_D=400V$ Gate Open $T_j=125$		MIN.	2500	V/ $\mu s$
(dI/dt) <sub>c</sub>	(dV/dt) <sub>c</sub> =20V/ $\mu s$ $T_j=125$		MIN.	25	A/ms

$t_{on}$   $I_G=80mA I_A=400mA I_R=40mA$   
 $T_j=25$

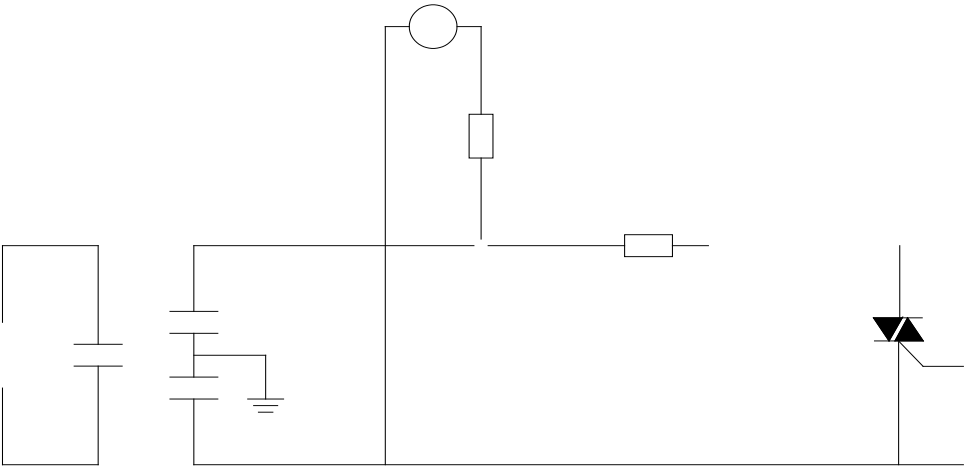
<u>J</u>	<u>ST</u>	<u>30</u>	<u>E</u>	<u>-600</u>	<u>BW</u>	<u>-/</u>
JieJie Microelectronics Co., Ltd.	Triacs IT(RMS):30A		E:TO-263		BW:IGT1-3 50mA	Blank:Tube -TR:Tape & Reel
				600:V <sub>DRM</sub> /V <sub>RRM</sub> 600V		





**JST30E-600BW**

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



Order code	Voltage V <sub>DRM</sub> /V <sub>RRM</sub> (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		H- I- J			
JST30E-600BW	600	50	TO-263	50	Tube
JST30E-600BW-TR				800	Tape & Reel

**Document Revision History**

Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated
Oct.20, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

**JST30E-600BW**

**JieJie Microelectronics Co., Ltd.**

**JST30E-600BW**

**JieJie M**

