

**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	A^2

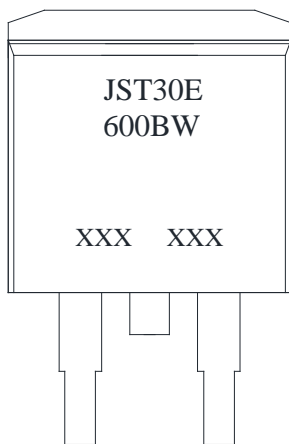
Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.8)	V_{pp}	2.5	kV
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($T_j=25$ unless otherwise specified)

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/ μs
(dI/dt) _c	(dV/dt) _c =20V/ μs $T_j=125$		MIN.	25	A/ms

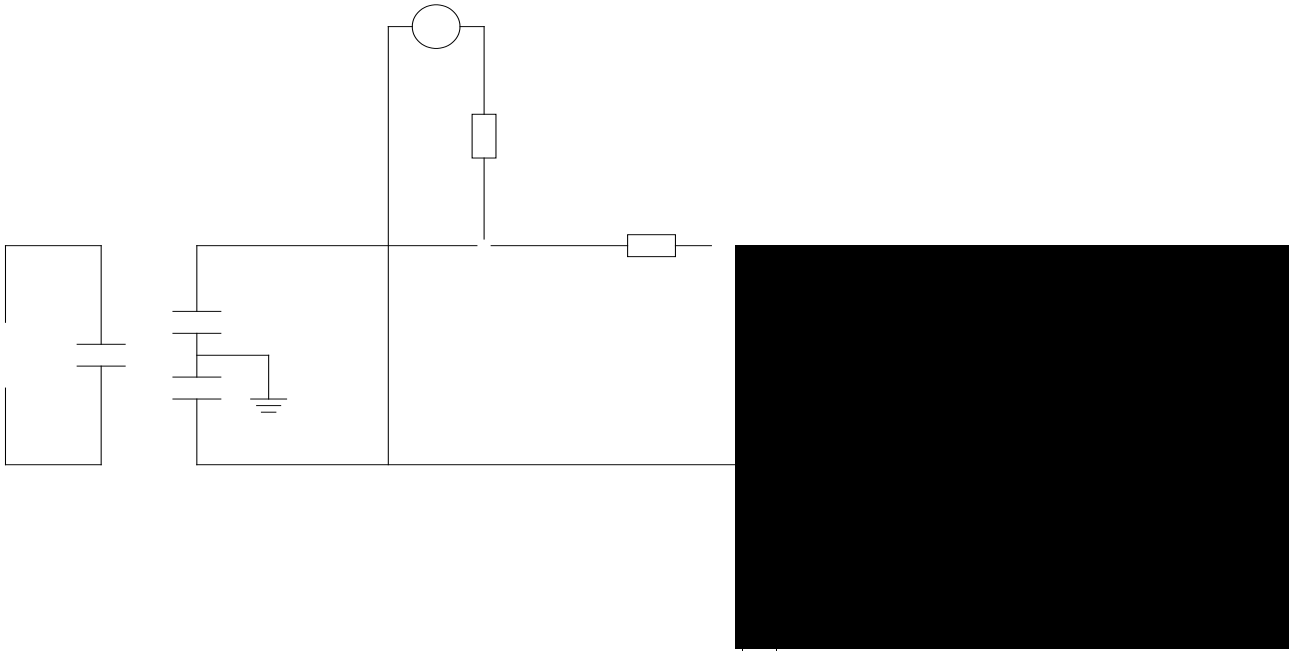
t_{on} $I_G=80mA$ $I_A=400mA$ $I_R=40mA$
 $T_j=25$

<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	$I_{T(RMS)}:30A$				Blank:Tube -TR:Tape & Reel
			$E:TO-263$		$BW:I_{GT1-3} 50mA$	
				$600:V_{DRM} / V_{RRM} 600V$		



JST30E-600BW

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



Order code	Voltage V _{DRM} /V _{RRM} (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

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