

DESCRIPTION:

The JST16E-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. JST16E-600BW snubberless triac is especially recommended for use on inductive loads. Package TO-263 is RoHS compliant.

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	16	A
V_{DRM}/V_{RRM}	600	V
$I_{GT} / /$	50/50/50	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 ($T_j=25^\circ\text{C}$)	V_{DRM}	600	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	600	V
RMS on-state current ($T_C 098^\circ\text{C}$)	$I_{T(RMS)}$	16	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	160	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		176	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	128	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$)	di/dt	100	A/s
Peak gate current ($t_p=20\text{ s}$, $T_j=125^\circ\text{C}$)	I_{GM}	4	A
Average gate power dissipation ($T_j=125^\circ\text{C}$)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W

Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.8)	V_{pp}	4	kV
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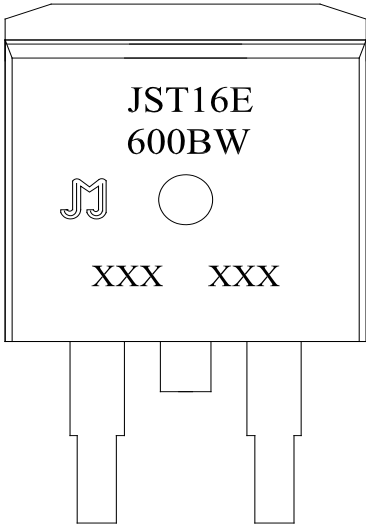
ELECTRICAL CHARACTERISTICS (unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33\Omega$	- -	MAX.	50	mA
V_{GT}		- -	MAX.	1	V

ORDERING INFORMATION

<u>J</u>	<u>ST</u>	<u>16</u>	<u>E</u>	<u>-600</u>	<u>BW</u>	<u>-/</u>
JieJie Microelectronics Co., Ltd.	Triacs	$I_T(RMS):16A$	E:TO-263	600: V_{DRM}/V_{RRM} 1600V	BW:IGT1-3 050mA	Blank:Tube -TR:Tape & Reel

MARKING

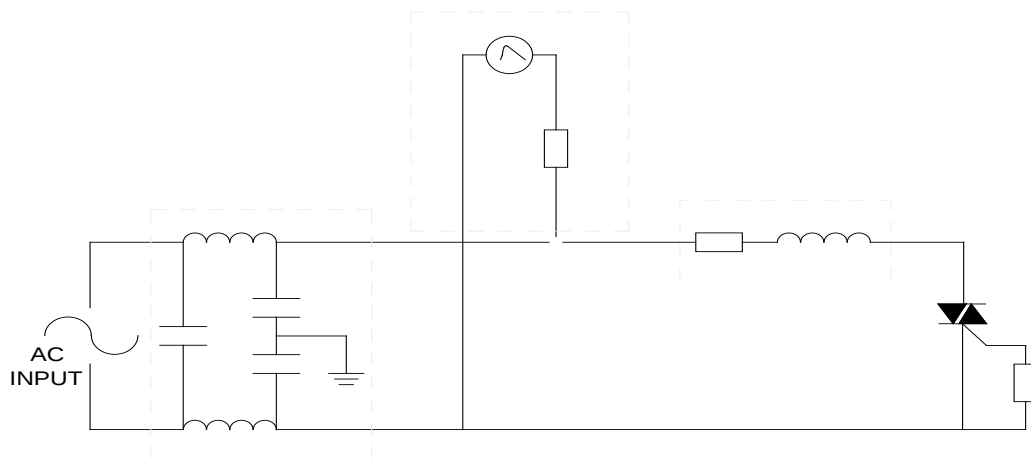
 JST16E 600BW XXX XXX	XXX XXX Year Month Production Code
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OBW

Electronics Co., Ltd.

power dissipation ver

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



ORDERING INFORMATION

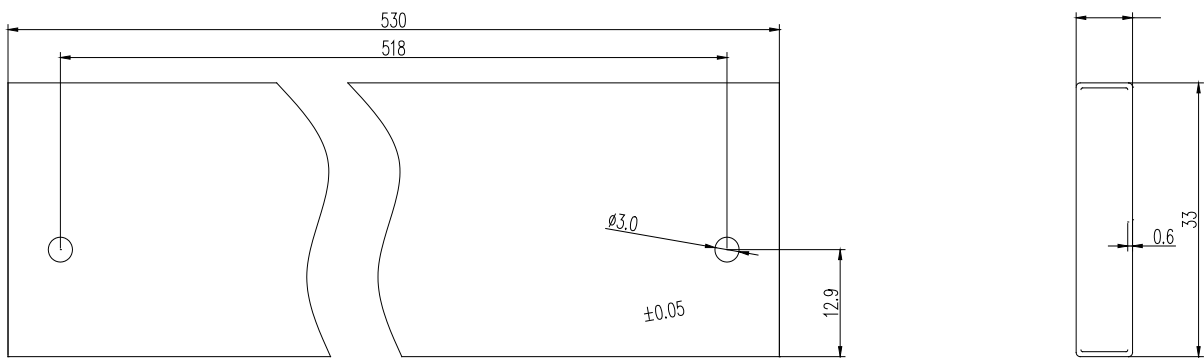
Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
JST16E-600BW	600	50	TO-263	50	Tube
JST16E-600BW-TR				800	Tape& Reel

Document Revision History

Date	Revision	Changes
Apr.12, 2023	A.1.0	Last updated
Oct.20, 2025	A.1.1	Revise

JST16E-600BW

DELIVERY MODE



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