



DESCRIPTION:

The JST12X-1000CW triac is suitable for general purpose AC switching. It is more suitable for the switch functions of washing machines' water valve, positive inversion of motor, heat pump...JST12X-1000CW snubberless triac is especially recommended for use on inductive loads. By using an external plastic package, JST12X-1000CW provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.

MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

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}	1000	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	1000	V
RMS on-state current ($T_C \leq 85^\circ\text{C}$)	$I_{T(RMS)}$	12	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	130	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		140	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	84.5 84t	



Peak pulse voltage ($T_j=25^\circ\text{C}$; non-repetitive, off-state; FIG.7)	V_{pp}	5	kV
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ELECTRICAL CHARACTERISTICS ($T_j=25^\circ\text{C}$ unless otherwise specified)

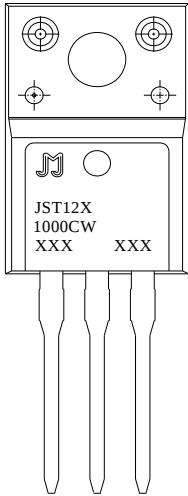
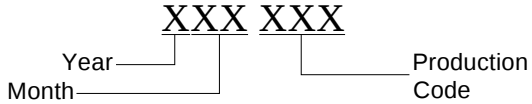
I_{GT}	$V_D=12\text{V } R_L=33\Omega$	- -	MAX.	35	mA
V_{GT}		- -	MAX.	1	V



ORDERING INFORMATION

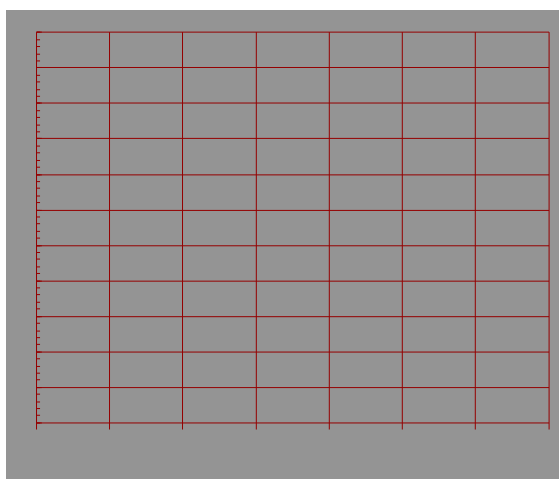
J	ST	12	X	-1000	CW
JieJie Microelectronics Co., Ltd.	Triacs	$I_{T(RMS)}: 12A$	X: TO-220F(Ins)	1000: $V_{DRM}/V_{RRM} \geq 1000V$	CW: $I_{GT1-3} \leq 35mA$

MARKING

	
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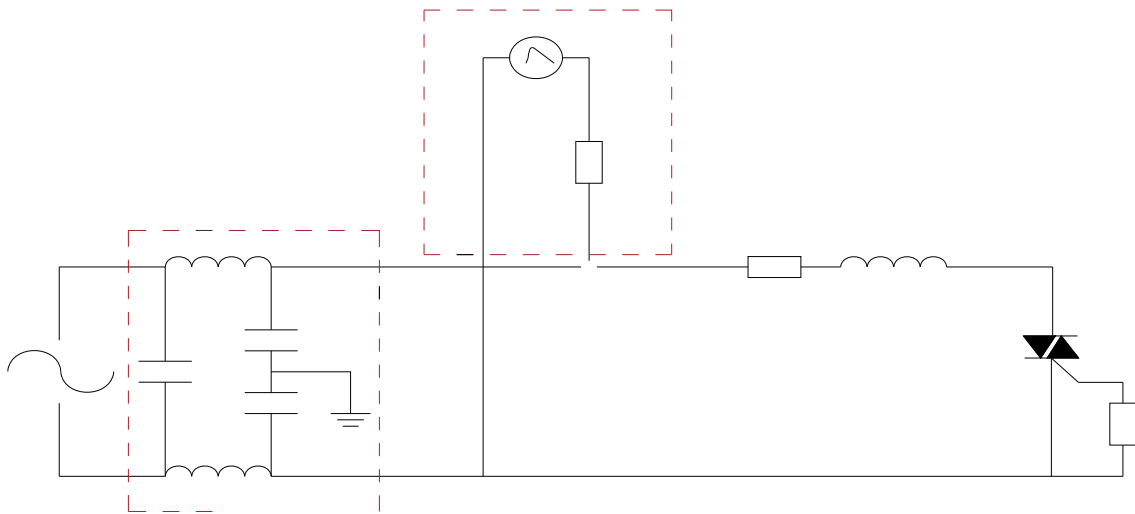
Maximum power dissipation versus RMS
on-state current



RMS on-state current versus case
temperature



FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards





ORDERING INFORMATION

Date	Revision	Changes
Apr.10, 2023	A.1.0	Last updated
Oct.15, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA



PACKAGE MECHANICAL DATA



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Information furnished in this document is believed to be accurate and reliable. However,
Jiangsu JieJie Microelectronics