JST12X-1000CW 12A TRIAC

Rev.A.1.1

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

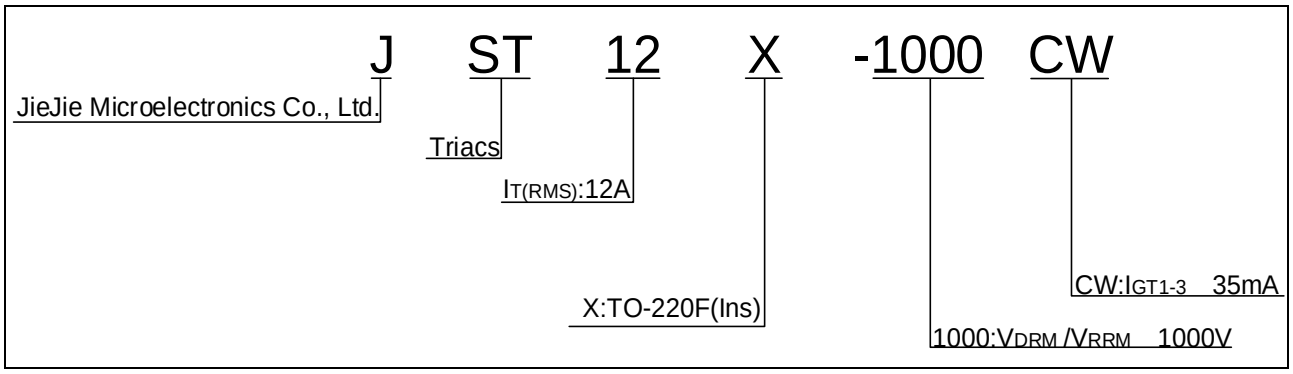
Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-125	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	1000	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	1000	V
RMS on-state current (T_C 85)	$I_{T(RMS)}$	12	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	130	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		140	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	84.5 84t ђ	

Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	5	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	35	mA
V_{GT}		- -	MAX.	1	V

ORDERING INFORMATION



MARKING

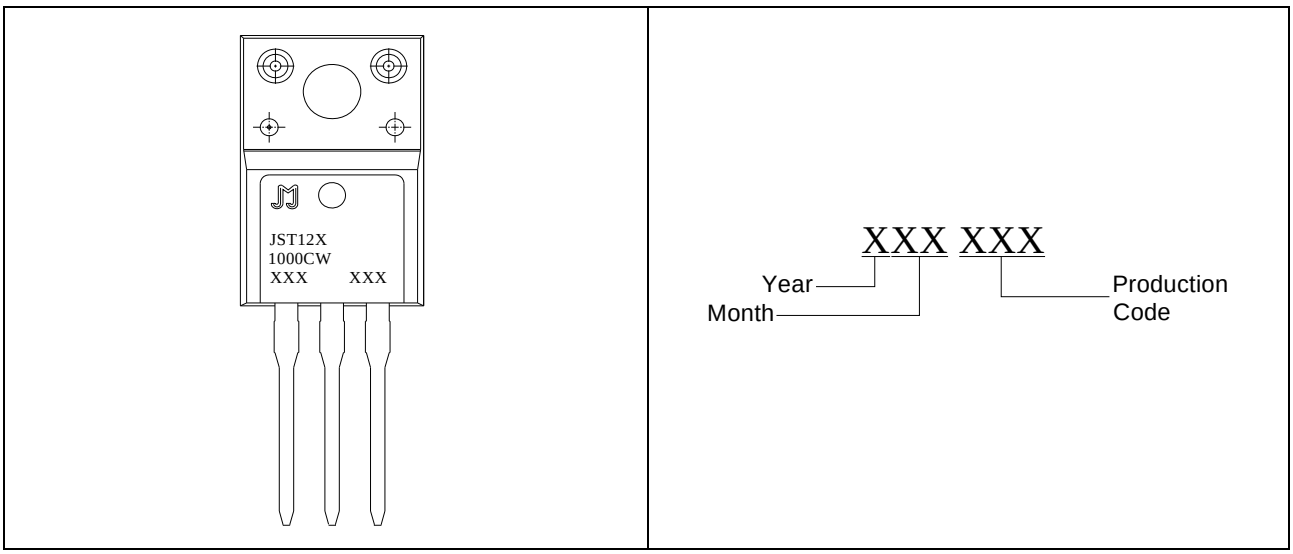


FIG.1: Maximum power dissipation versus RMS on-state current

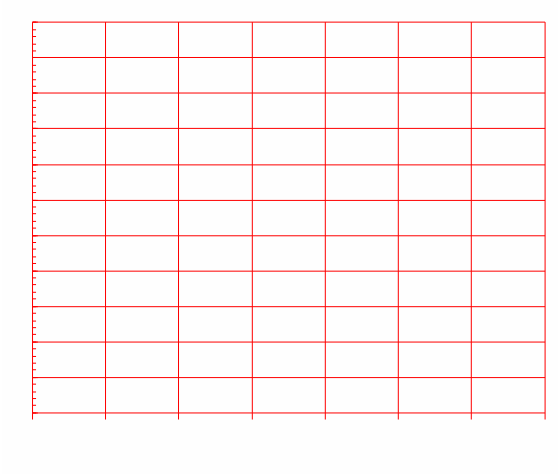
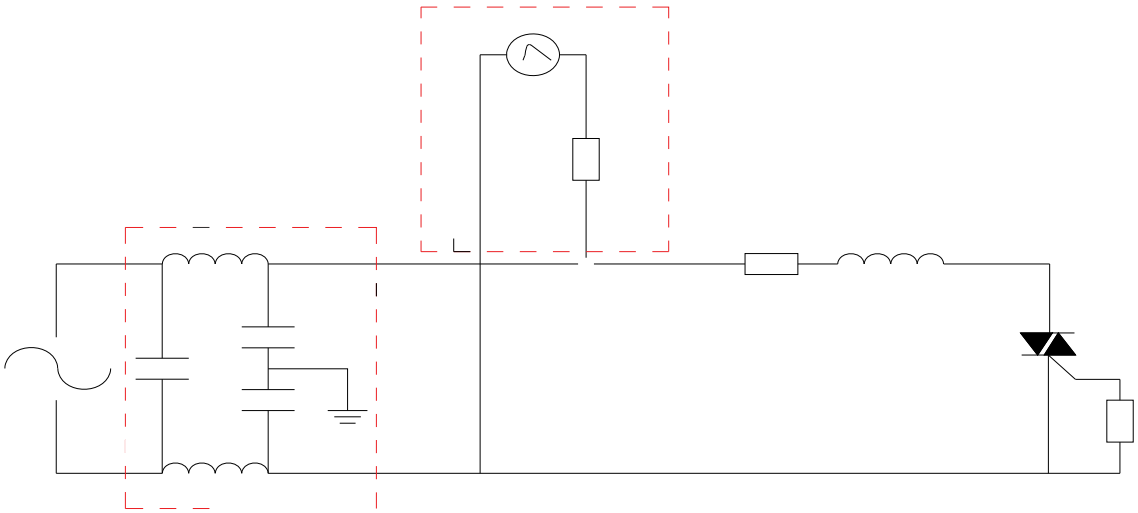


FIG.2: RMS on-state current versus case temperature

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



ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
JST12X-1000CW	1000	35	TO-220F(Ins)	50	Tube

Document Revision History

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

PACKAGE MECHANICAL DATA



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