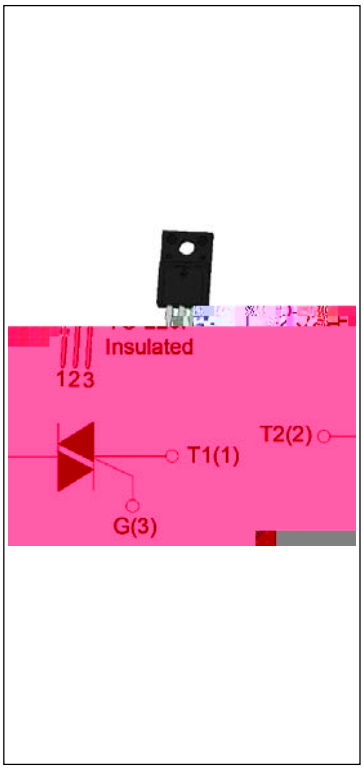
The JST12X-1200CW triac is suitable for general purpose AC switching. It is more suitable for the switch functions of washing machines' water valve, positive inversion of motor, heat pump...JST12X-1200CW snubberless triac is especially recommended for use on inductive loads. By using an external plastic package, JST12X-1200CW provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.



Symbol	Value	Unit
$I_{T(RMS)}$	12	A
V_{DRM} /V_{RRM}	1200	V
I_{GT} / /	35/35/35	mA

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}	1200	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	1200	V
RMS on-state current ($T_C \leq$ 80)	$I_{T(RMS)}$	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	A^2s
Critical rate of rise of on-state current (I_G=2 × I_{GT} , f=100Hz , T_j=125)	dI/dt	100	A/μs
Peak gate current (t_p=20μs , T_j=125)	I_{GM}	4	A
Average gate power dissipation (T_j=125)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W

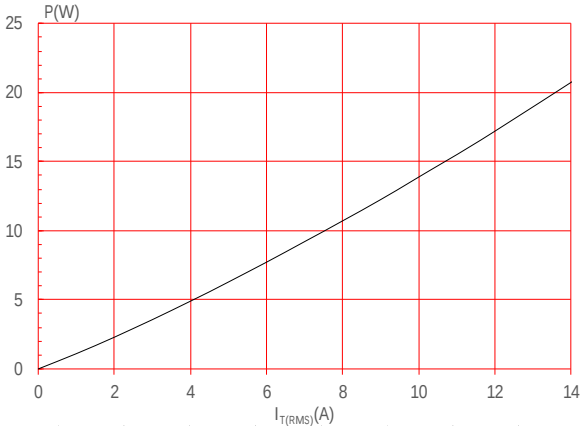
J ST 12 X -1200 CW

JieJie Microelectronics Co., Ltd.

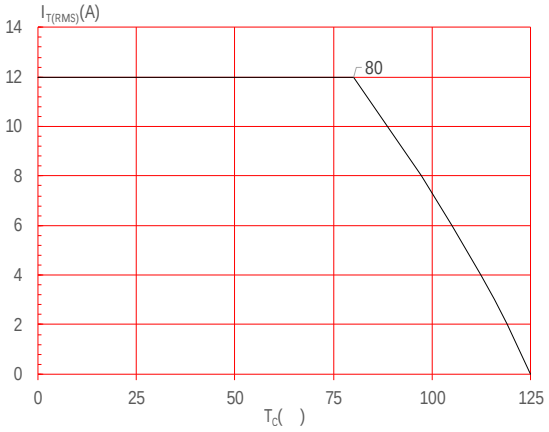
Triacs

1200:V_{DRM} /V

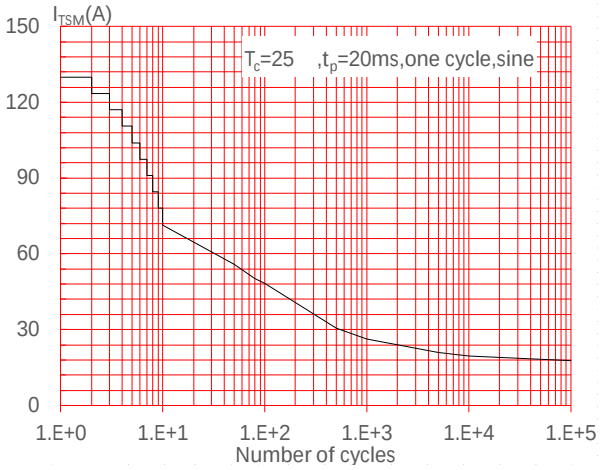
Maximum power dissipation versus RMS on-state current



RMS on-state current versus case temperature



Surge peak on-state current versus number of cycles



On-state characteristics

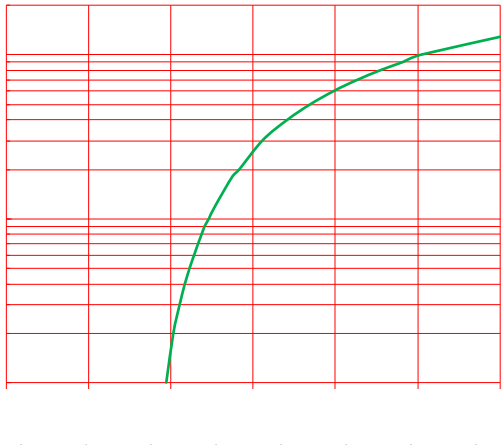
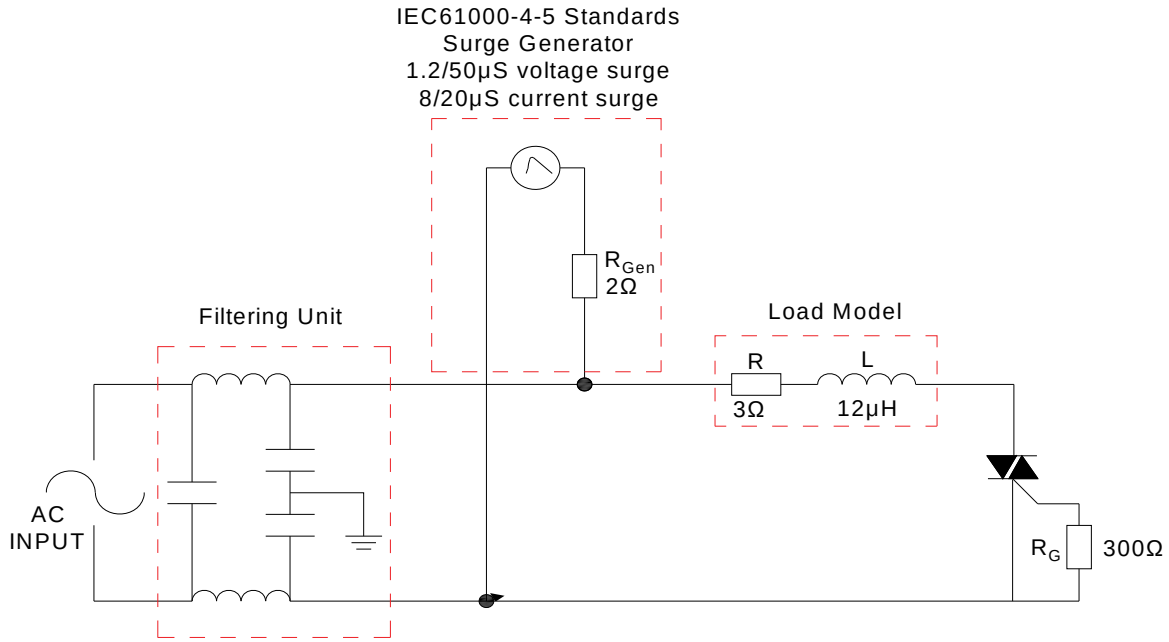


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



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