



DESCRIPTION:

The JST12F-600SW 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. JST12F-600SW snubberless triac is especially recommended for use on inductive loads. It can be driven directly through the MCU I/O port. By using an external plastic package, JST12F-600SW 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	



Average gate power dissipation ($T_j=125$)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{pp}	4	kV

ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

I_{GT}	$V_D=12V R_L=33$	- -	MAX.	10	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	$V_D=V_{DRM} T_j=125$ $R_L=3.3k$	- -	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	-	MAX.	25	mA
				30	
I_H	$I_T=500mA$		MAX.	15	mA
dV/dt	$V_D=400V$ Gate Open $T_j=125$		MIN.	500	V/ μs
(dI/dt) _c	(dV/dt) _c =10V/ μs $T_j=125$		MIN.	3	A/ms

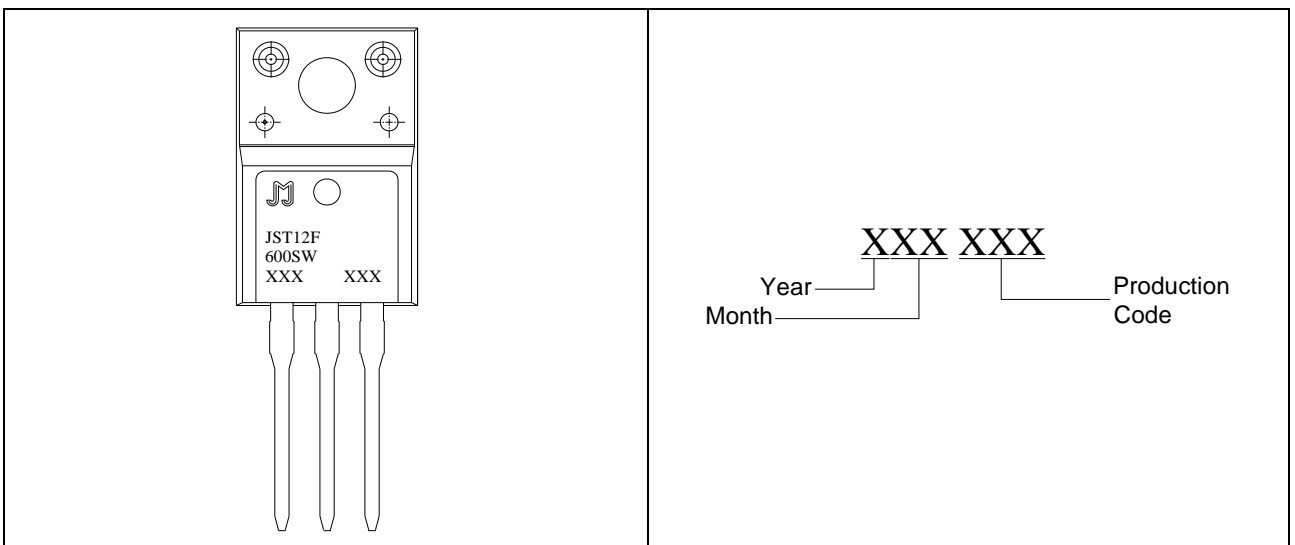
t_{on} $I_G=20mA$ $I_A=200mA$ $I_R=20mA$
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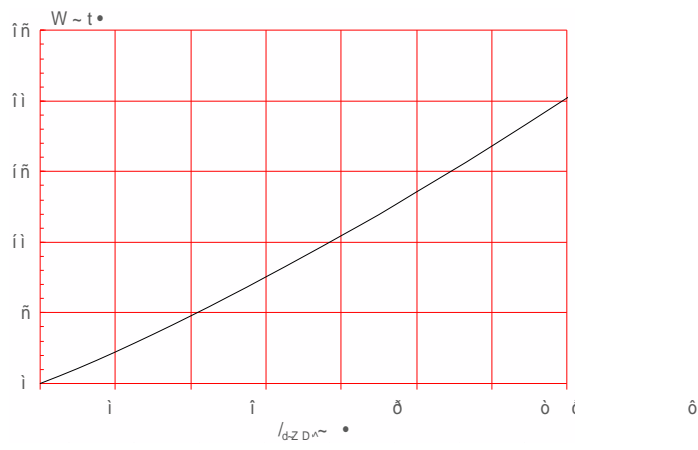
J	ST	12	F	-600	SW
JieJie Microelectronics Co., Ltd.	Triacs	$I_{T(RMS)}:12A$	F:TO-220F(Ins)	600:VDRM /VRRM 1 600V	SW:IGT1-3 0 10mA

MARKING





Maximum power dissipation versus RMS on-state current



RMS on-state current versus case temperature

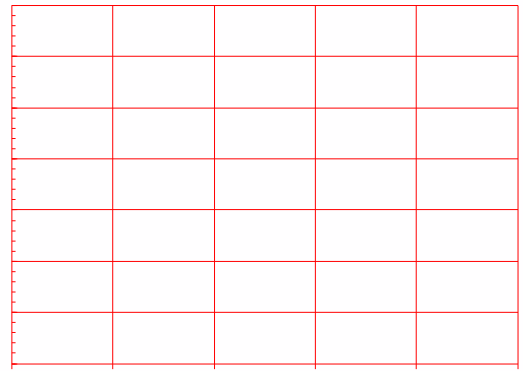
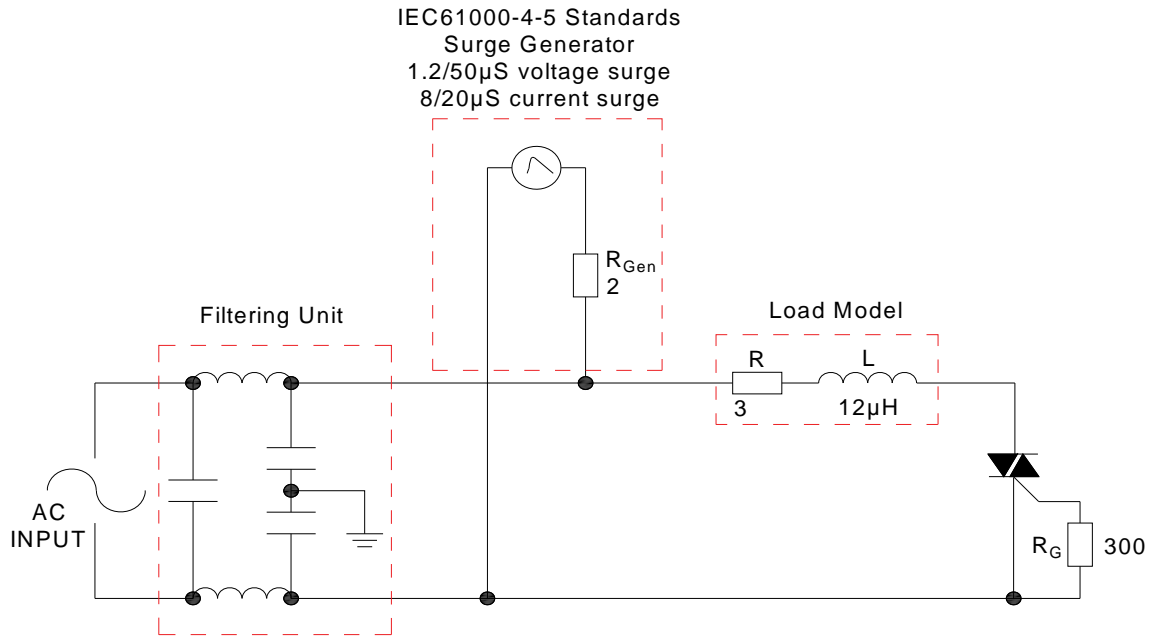


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



LEAD FORMING AND SOLDERING

Refer to the application note "Assembly Instructions for Thyristors in Through-hole Package" released by JieJie
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