



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.

Storage junction temperature range	$T_{stg}$	-40-150	
Operating junction temperature range	$T_j$	-40-125	



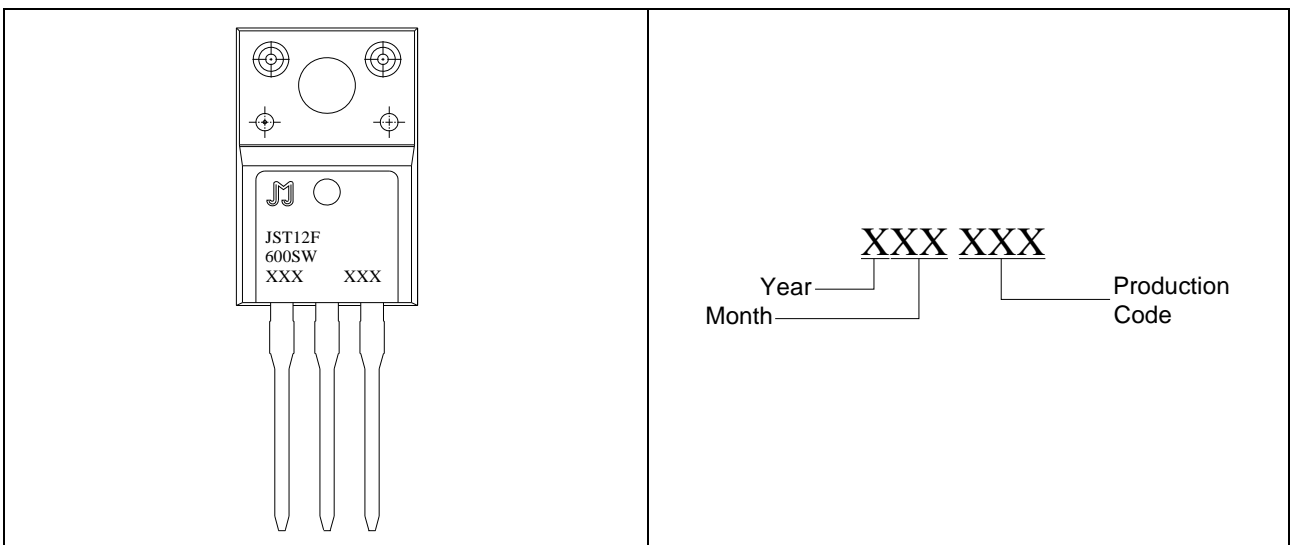
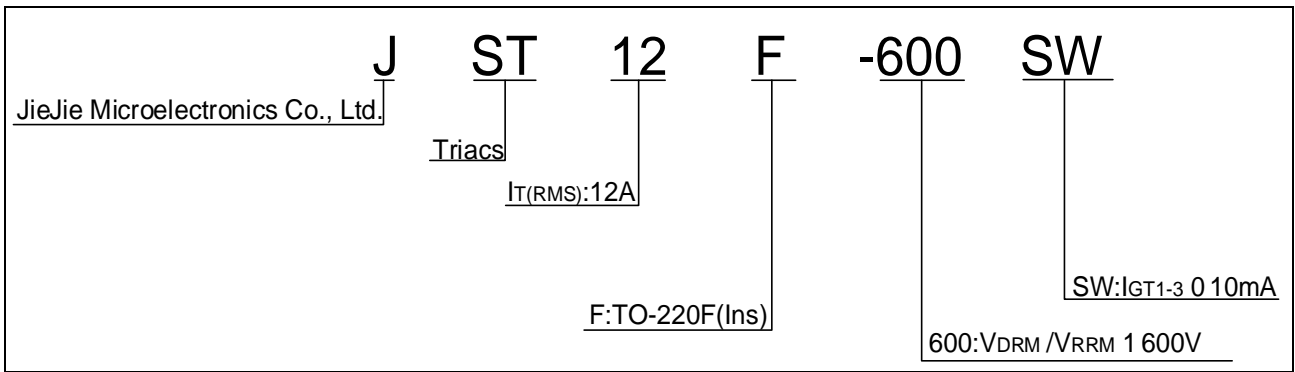
Average gate power dissipation ( $T_j=125$ )	$P_{G(AV)}$	0.5	W
Peak gate power	$P_{GM}$	10	W
Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG.7)	$V_{pp}$	4	kV

( $T_j=25$  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/ $\mu s$
$(dI/dt)_c$	$(dV/dt)_c=10V/\mu s T_j=125$		MIN.	3	A/ms

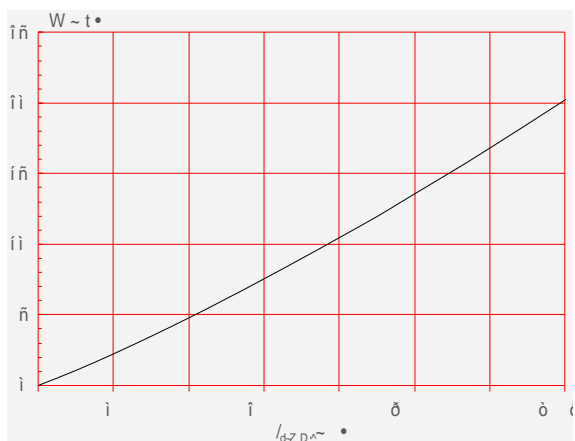
$t_{on}$

$I_G=20mA I_A=200mA I_R=20mA$   
 $T=1 \mu s$





Maximum power dissipation versus RMS on-state current



RMS on-state current versus case temperature

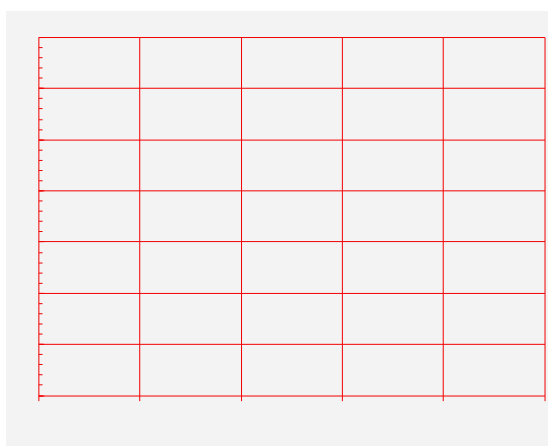
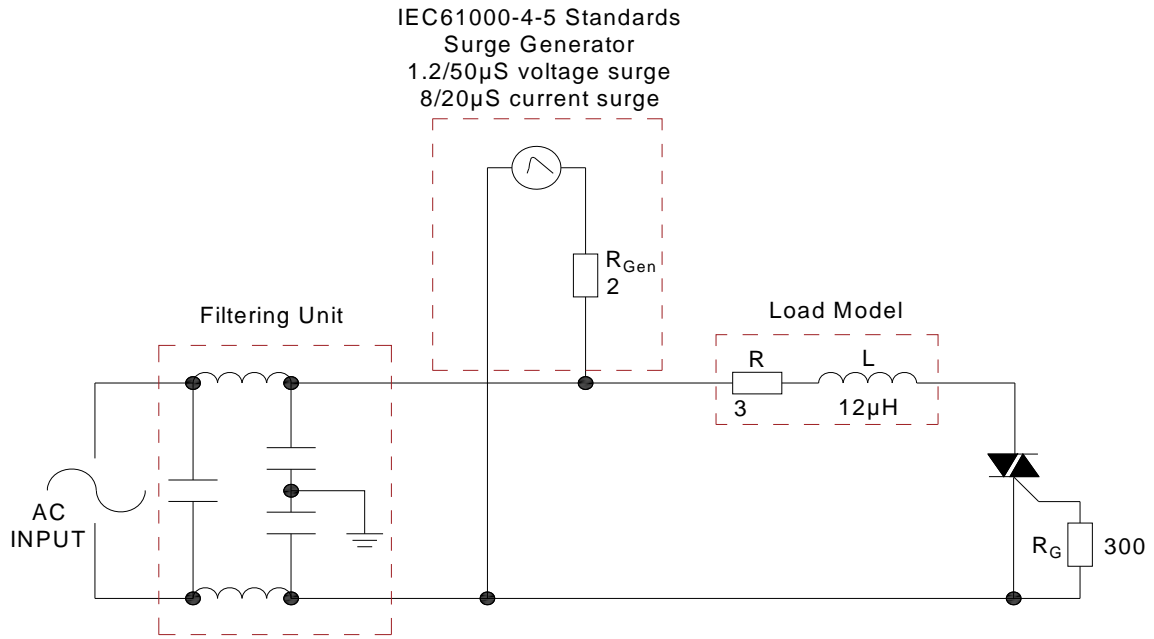




FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



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