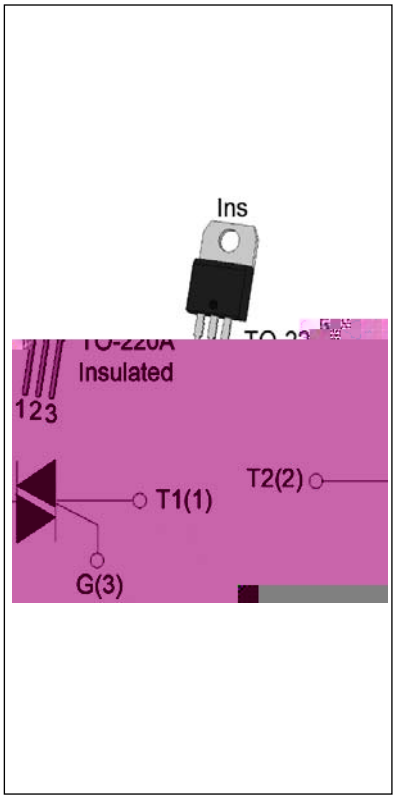
The JST24A-600CW triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. JST24A-600CW snubberless triac is especially recommended for use on inductive loads. By using an internal ceramic pad, JST24A-600CW provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906).Package TO-220A is RoHS compliant.



Symbol	Value	Unit
$I_{T(RMS)}$	25	A
V_{DRM} /V_{RRM}	600	V
$I_{GT\ I/II/III}$	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}	600	V
Repetitive peak reverse voltage (T_j=25℃)	V_{RRM}	600	V
RMS on-state current (T_C≤79℃)	$I_{T(RMS)}$	25	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25℃)	I_{TSM}	250	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25℃)		275	
I^2t value for fusing (t_p=10ms , T_j=25℃)	I^2t	340	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
Peak pulse voltage (T_j=25℃; non-repetitive,off-state;FIG.7)	V_{pp}	2.5	kV

(T_j=25℃ unless otherwise specified)

I_{GT}	V_D =12V R_L =33Ω	Ⅰ-Ⅱ-Ⅲ	MAX.	35	mA
V_{GT}		Ⅰ-Ⅱ-Ⅲ	MAX.	1	V
V_{GD}	V_D =V_{DRM} T_j=125℃ R_L =3.3KΩ	Ⅰ-Ⅱ-Ⅲ	MIN.	0.2	V
I_L	I_G=1.2I_{GT}	Ⅰ-Ⅲ	MAX.	70	mA
		Ⅱ		80	
I_H	I_T =500mA		MAX.	50	mA
dV/dt	V_D=400V Gate Open T_j=125℃		MIN.	1500	V/μs
(dI/dt)c	(dV/dt)c=20V/μs T_j=125℃		MIN.	15	A/ms
t_{on}	I_G=40mA I_A=200mA I_R=20mA T_j=25℃		TYP.	7	μs
t_{off}				50	

V_{TM}	I_{TM} =35A t_p=380μs	T_j=25℃	1.5	V
V_{TO}	Threshold voltage	T_j=125℃	0.75	V
R_D	Dynamic resistance	T_j=125℃	18	mΩ
I_{DRM}	V_D=$V_{DRM}$$V_R$ =V_{RRM}	T_j=25℃	5	μA
I_{RRM}		T_j=125℃	1.5	mA

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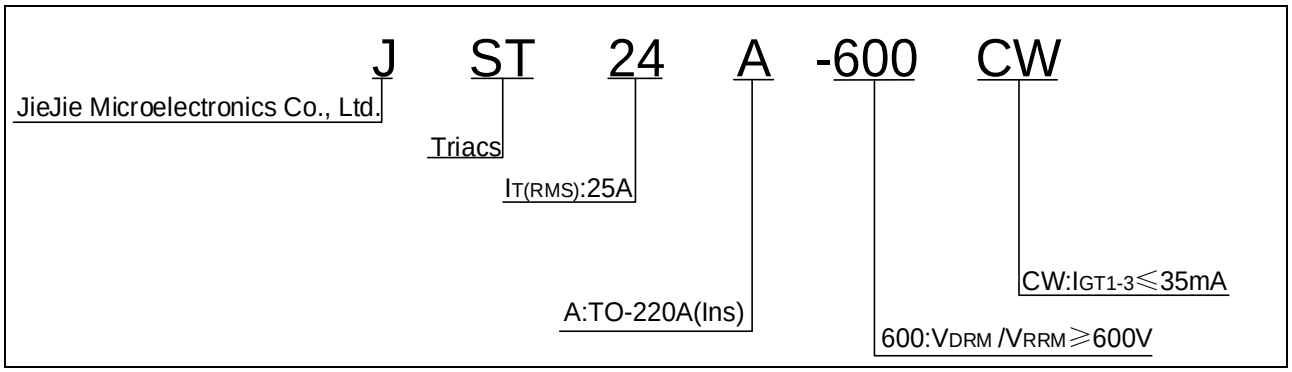
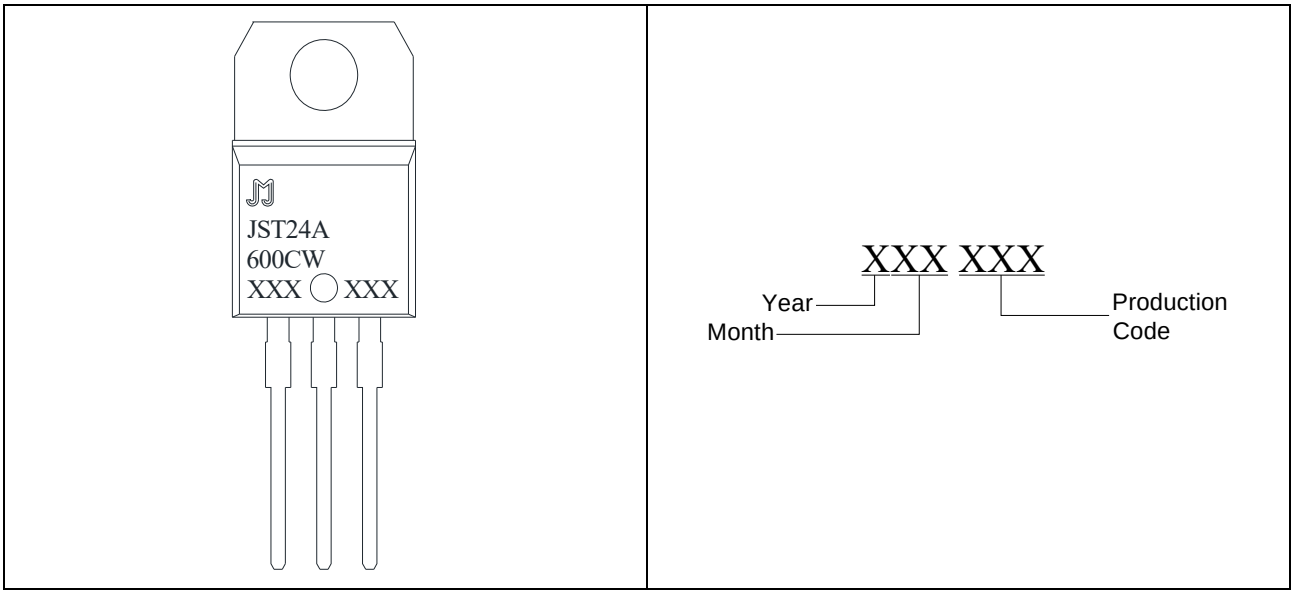

J ST 24 A -600 CW
JieJie Microelectronics Co., Ltd.
Triacs
IT(RMS):25A
A:TO-220A(Ins)
600:VDRM /VRRM≥600V
CW:IGT1-3≤35mA


JST24A
600CW
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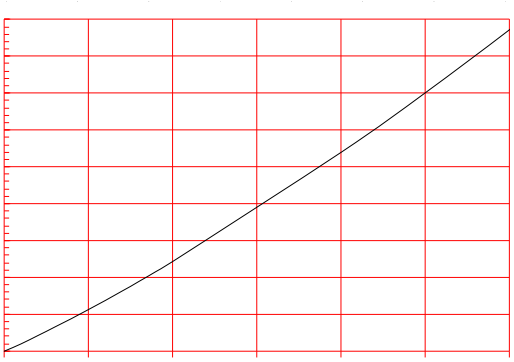
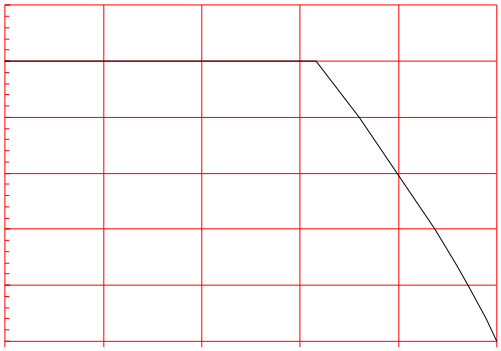
Production
Code

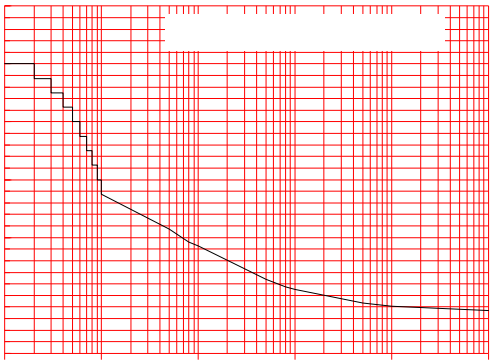
Maximum power dissipation versus RMS on-state current



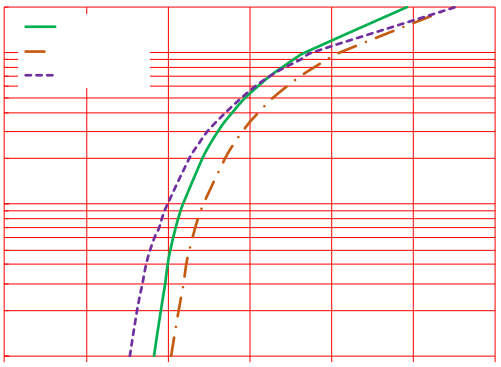
RMS on-state current versus case temperature



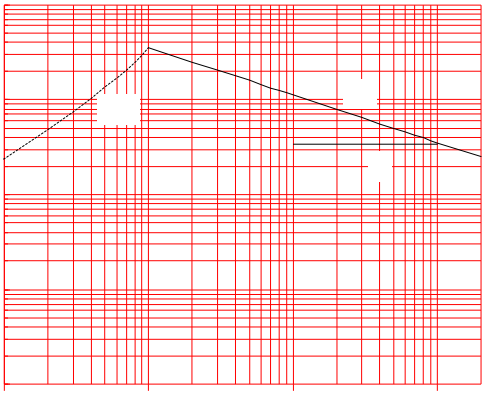
Surge peak on-state current versus number of cycles



On-state characteristics



Non-repetitive surge peak on-state current for a sinusoidal pulse with width t_p<20ms, and corresponding value of I^2t (dI/dt<100A/μs)



Relative variations of gate trigger current, holding current and latching current versus junction temperature

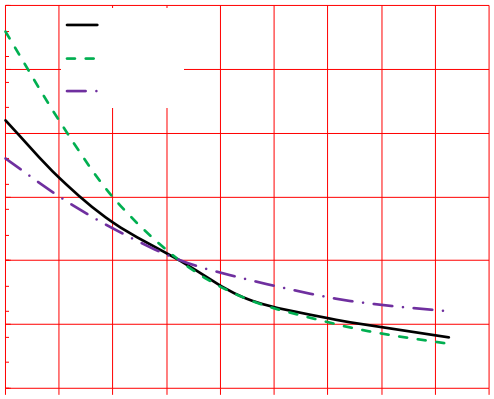
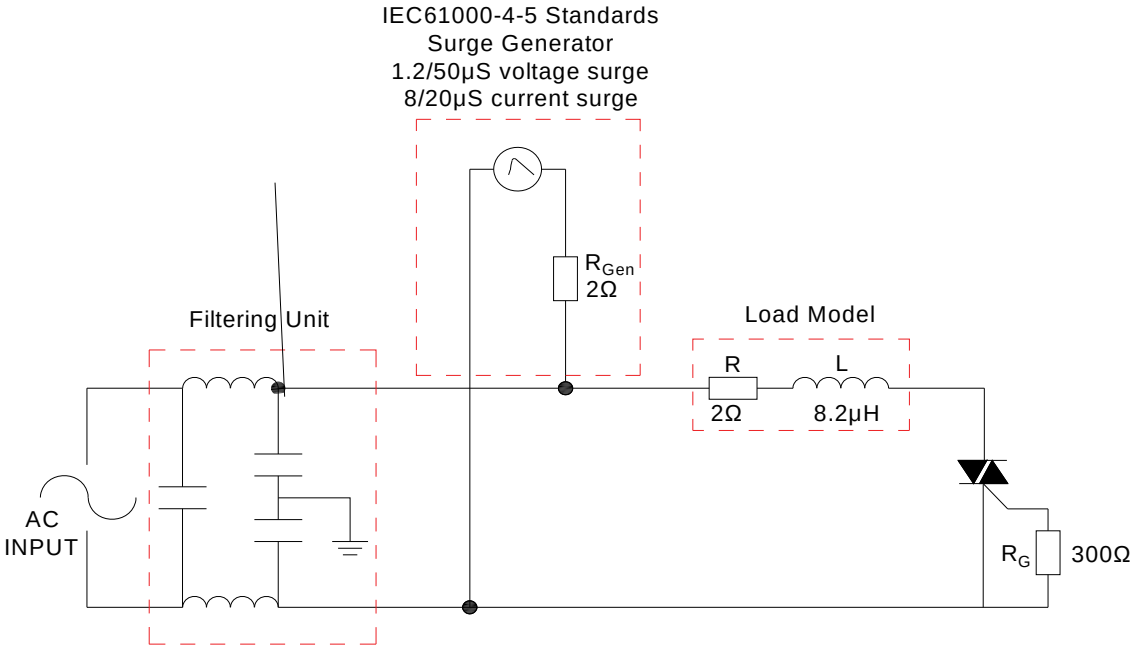
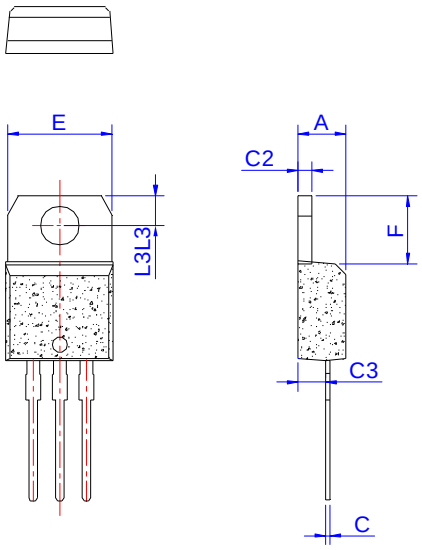


FIG.7：Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



Date	Revision	Changes
Apr.12, 2023	A.1.0	Last updated


E
L3
L3
A
C2
F
C3
C