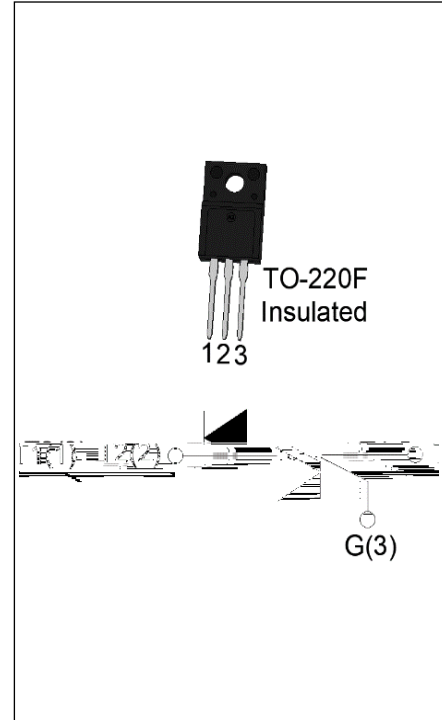


The JST08F-800C triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. By using an external plastic package, JST08F-800C provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.



Symbol	Value	Unit
$I_{T(RMS)}$	8	A
V_{DRM}/V_{RRM}	800	V
$I_{GT} / / /$	25/25/25/50	mA

Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-125	
Repetitive peak off-state voltage ($T_j=25^\circ\text{C}$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	800	V
RMS on-state current ($T_c = 93^\circ\text{C}$)	$I_{T(RMS)}$	8	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	80	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		88	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	32	A^2s
Critical rate of rise of on-state current ($I_G=2 I_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$)	-	80	$\text{A}/\mu\text{s}$
	-	40	
Peak gate current ($t_p=20\mu\text{s}$, $T_j=125^\circ\text{C}$)	I_{GM}	4	A
Average gate power dissipation ($T_j=125^\circ\text{C}$)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W



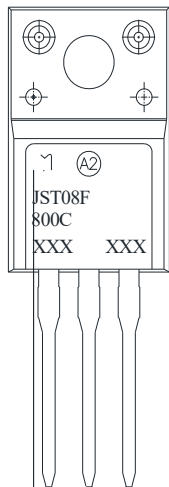
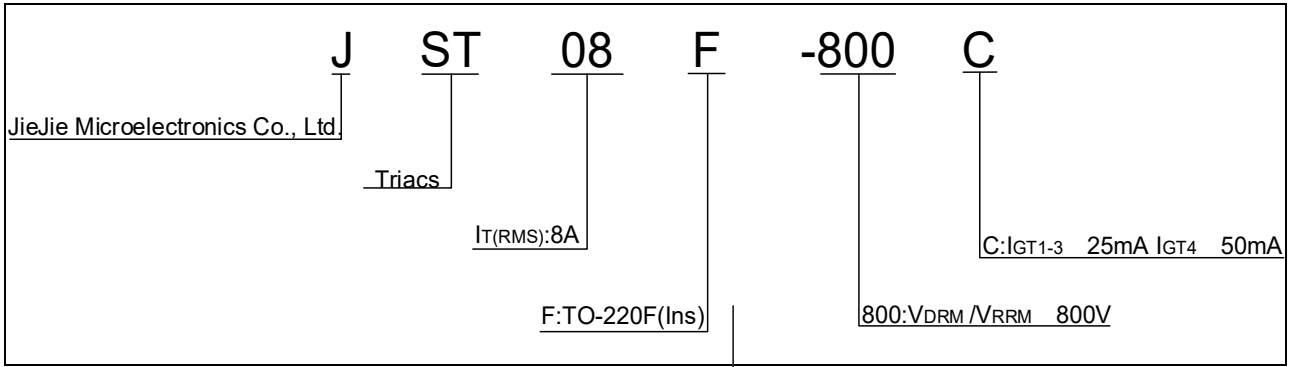
Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{PP}	1	kV
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($T_j=25$ unless otherwise specified)

I_{GT}	$V_D=12V R_L=33\Omega$	- -	MAX.	25	mA
				50	
V_{GT}		ALL	MAX.	1	V
V_{GD}	$V_D=V_{DRM} T_j=125$ $R_L=3.3K\Omega$	ALL	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	- -	MAX.	40	mA
				80	
I_H	$I_T=200mA$		MAX.	30	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	500	V/ μs
$(dV/dt)_c$	$(dI/dt)_c=3.5A/ms, T_j=125$		MIN.	6	V/ μs
t_{on}	$I_G=80mA I_A=400mA I_R=40mA$ $T_j=25$		TYP.	5	μs
t_{off}				30	

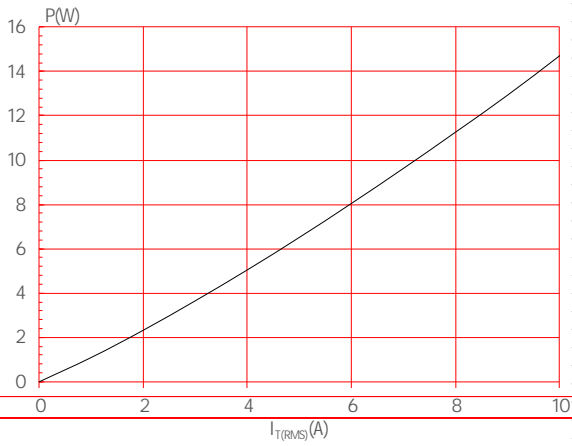
V_{TM}	$I_{TM}=11A t_p=380\mu s$	$T_j=25$		1.5	V
V_{TO}	Threshold voltage	$T_j=125$		0.81	V
R_D	Dynamic resistance	$T_j=125$		44	m Ω
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$		5	μA
I_{RRM}		$T_j=125$		0.35	mA

$R_{th(j-c)}$	junction to case (AC)		2.8	/W
$R_{th(j-a)}$	junction to ambient (AC)		60	/W

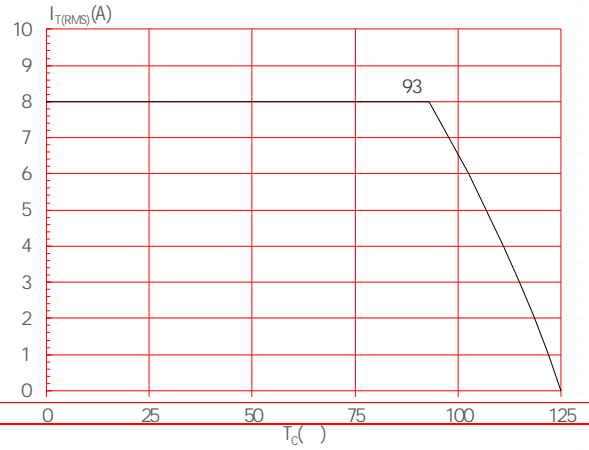




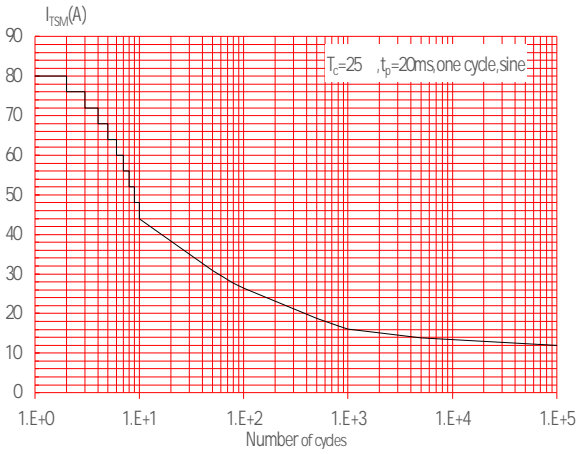
Maximum power dissipation versus RMS on-state current



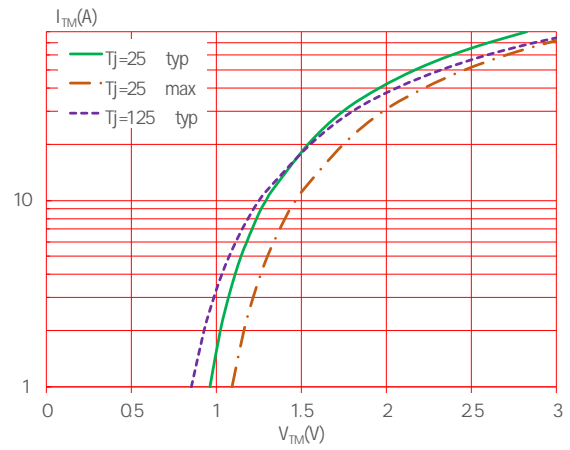
RMS on-state current versus case temperature



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 (- : $di/dt < 80A/\mu s$; - : $di/dt < 40A/\mu s$)

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

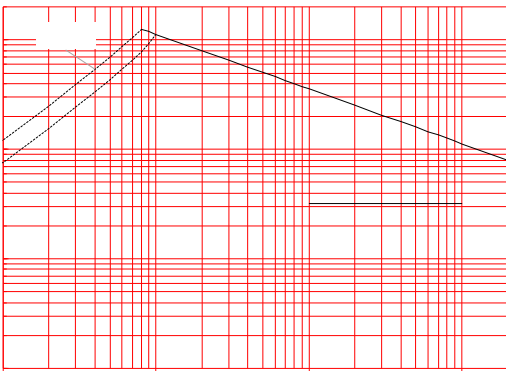
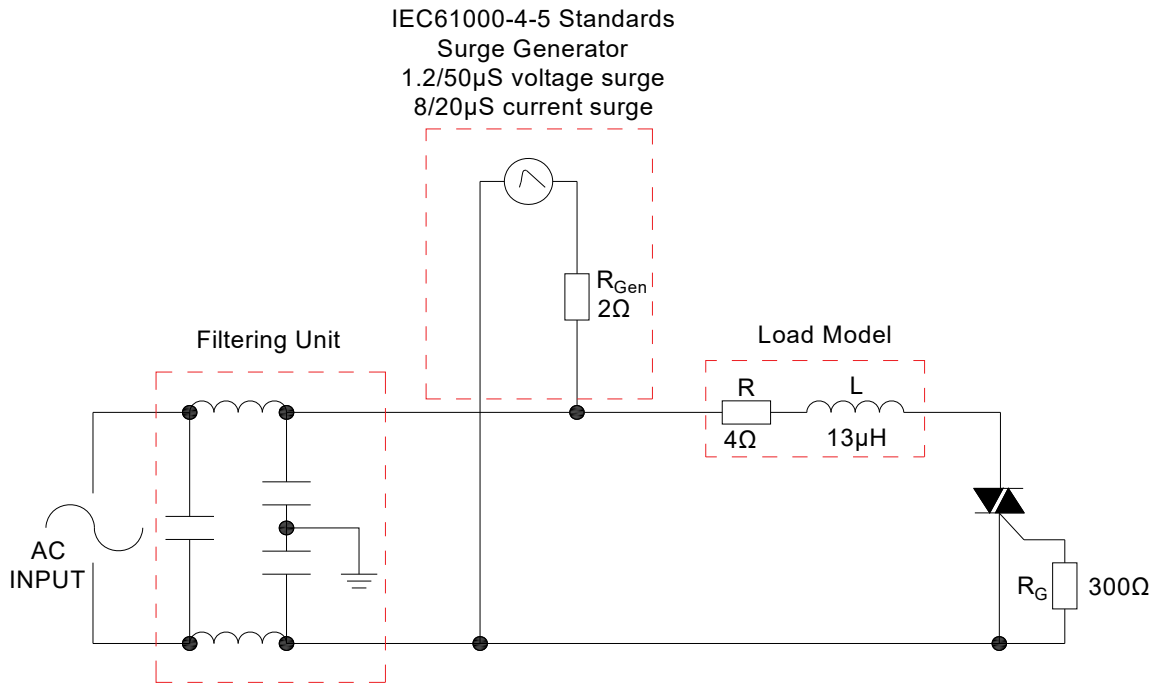




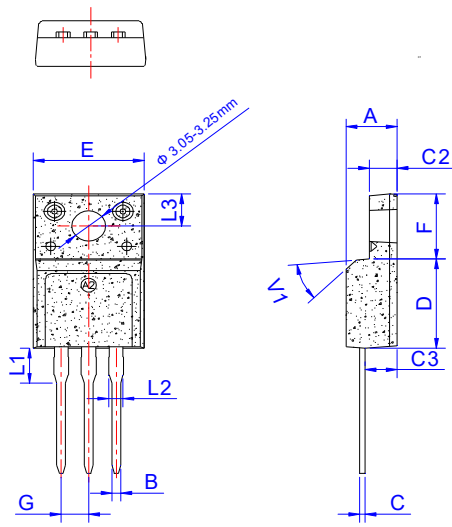
FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



Refer to Instructions for installation of plastic-sealed in-line power devices released by JieJie.



Date	Revision	Changes
Apr. 14, 2023	A.1.0	Last updated




Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.50		4.90	0.177		0.193
B	0.74	0.80	0.83	0.029	0.031	0.033
C	0.47		0.65	0.019		0.026
C2	2.45		2.75	0.096		0.108
C3	2.60		3.00	0.102		0.118
D	8.80		9.30	0.346		0.366
E	9.80		10.4	0.386		0.410
F	6.40		6.80	0.252		0.268
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1	3.20			0.126		
L2	1.14		1.70	0.045		0.067
L3	3.20			0.126		
V1		45°			45°	



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