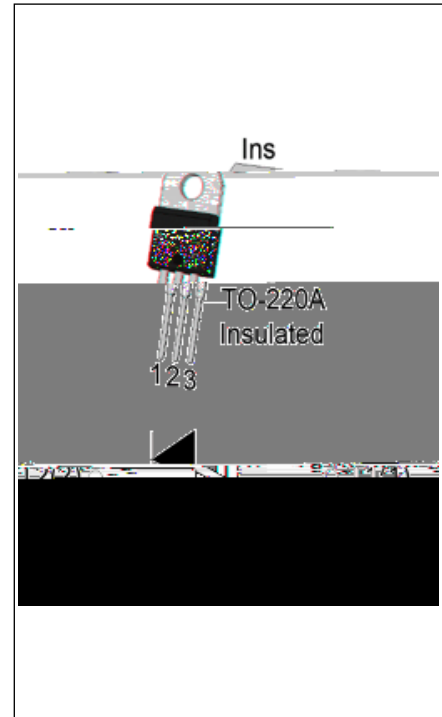


**JST08A-800C 8A TRIAC**

Rev.A.1.1

**DESCRIPTION:**

The JST08A-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 internal ceramic pad, JST08A-800C provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.


**MAIN FEATURES**

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

**ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Value	Unit
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 ( $T_c = 97^\circ\text{C}$ )	$I_{T(RMS)}$	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	$\text{A}^2\text{s}$
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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**ELECTRICAL CHARACTERISTICS** ( $T_j=25$  unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D=12V R_L=33$	- -	MAX.	25	mA
				50	
$V_{GT}$		ALL	MAX.	1	V
$V_{GD}$	$V_D=V_{DRM} T_j=125$ $R_L=3.3k$	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/ $\mu s$
$(dV/dt)_c$	$(dI/dt)_c=3.5A/ms, T_j=125$		MIN.	6	V/ $\mu s$
$t_{on}$	$I_G=80mA I_A=400mA I_R=40mA$ $T_j=25$		TYP.	5	$\mu s$
$t_{off}$				30	

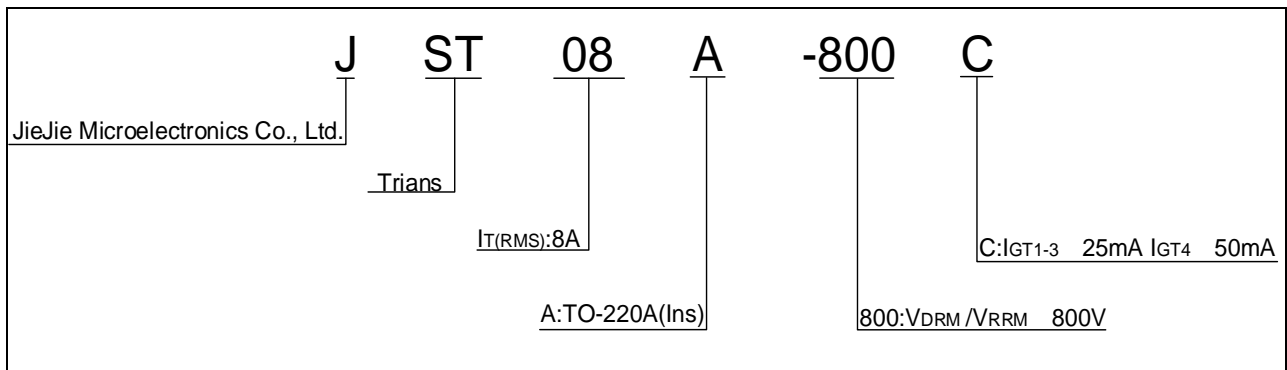
**STATIC CHARACTERISTICS**

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=11A t_p=380\mu s$	$T_j=25$	1.5	V
$V_{TO}$	Threshold voltage	$T_j=125$	0.81	V
$R_D$	Dynamic resistance	$T_j=125$	44	m
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	5	$\mu A$
$I_{RRM}$		$T_j=125$	0.35	mA

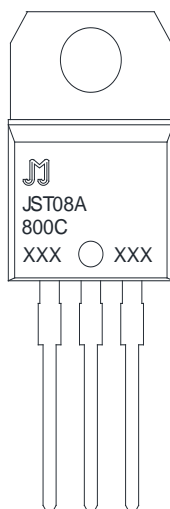
**THERMAL RESISTANCES**

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	2.5	/W

## ORDERING INFORMATION



## MARKING

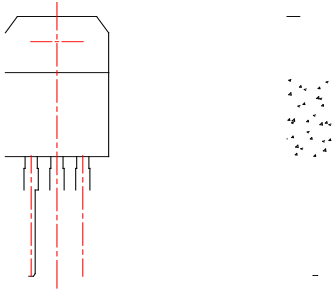








PACKAGE MECHANICAL DATA



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