



JST08A-800B 8A TRIAC

Rev A.1.1

DESCRIPTION:

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

MAIN FEATURES

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		

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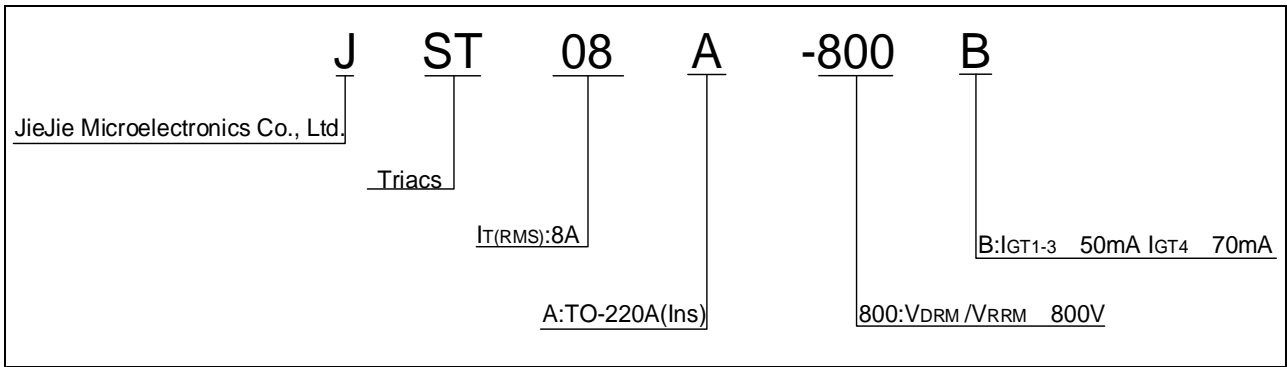
ELECTRICAL CHARACTERISTICS (unless otherwise specified)

Symbol	Test Conditions	Parameter	Value	Unit
I_{GT}	$V_D=12V R_L=33$	- -	MAX.	50
V_{GT}		ALL	MAX.	7
V_{GD}	$V_D=V_{DRM} T_j=125$ $R_L=3.3k$	ALL	MIN.	0.2
I_L	$I_G=1.2I_{GT}$	- -	MAX.	50
				100
I_H	$I_T=200mA$		MAX.	60
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	1000
$(dV/dt)_c$	$(dI/dt)_c=3.5A/ms, T_j=125$		MIN.	12
t_{on}	$I_G=80mA I_A=400mA I_R=40mA$ $T_j=25$		TYP.	5
t_{off}				30

STATIC CHARACTERISTICS

Symbol	Parameter	Value (MAX .)	Unit
V_{TM}	$I_{TM}=10A t_p=380\mu s$ $T_j=25$	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	μA

ORDERING INFORMATION



MARKING

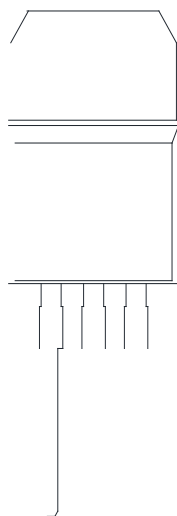


FIG.1: Maximum power dissipation versus RMS on-state current

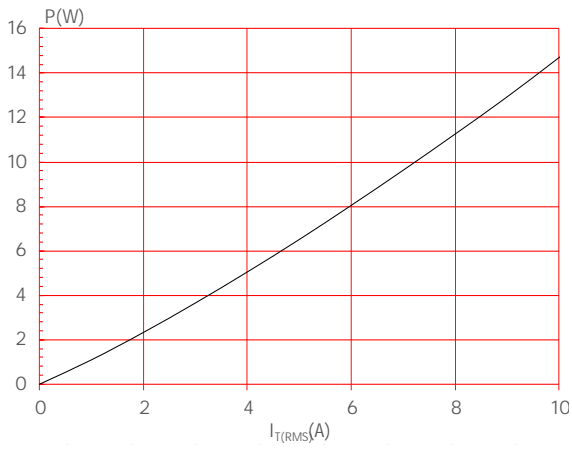
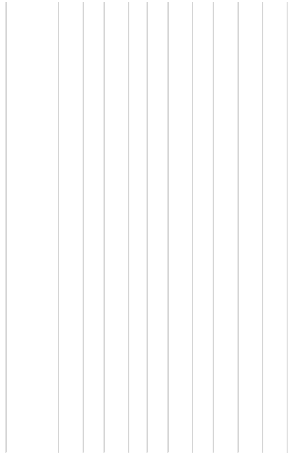


FIG.2: RMS on-state current versus case temperature

FIG.3: Surge peak on-state current versus number of cycles



ORDERING INFORMATION

Order Code	Voltage V _{DRM} /V _{R_{RRM}} (V)	IGT (μs)		Package	Base Qty (pcs)	Delivery
		-	-			
JST08A-800B	800	50	70	TO-220A (P)	50	Tube


Revision History

Date	Revision	Changes
Apr. 14, 2023	A.1.0	Last updated
Oct. 13, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

PACKAGE MECHANICAL DATA

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