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)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current (T_C 97)	$I_{T(RMS)}$	8	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	80	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		88	
I^2t value for fusing (t_p=10ms , T_j=25)	$I^{2}I$		

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

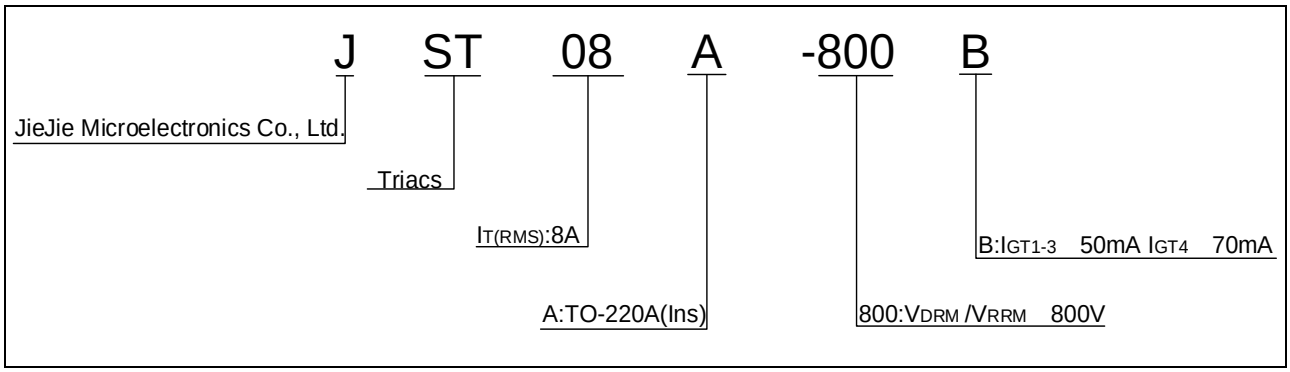
ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Conditions	Quadrant	Value		Unit
I_{GT}	V_D=12V R_L=33Ω	- -	MAX.	50	mA
				70	
V_{GT}		ALL	MAX.	1	V
V_{GD}	V_D=V_{DRM} T_j=125 R_L=3.3kΩ	ALL	MIN.	0.2	V
I_L	I_G=1.2I_{GT}	- -	MAX.	50	mA
				100	
I_H	I_T=200mA		MAX.	60	mA
dV/dt	V_D=540V Gate Open T_j=125		MIN.	1000	V/μs
(dV/dt)c	(dI/dt)c=3.5A/ms, T_j=125		MIN.	12	V/μs
t_{on}	I_G=80mA I_A=400mA I_R=40mA T_j=25		TYP.	5	μs
t_{off}				30	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM}=10A t_p=380μs	T_j=25	1.5	V
V_{TO}	Threshold voltage	T_j=125	0.81	V
R_D	Dynamic resistance	T_j=125	44	mΩ
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	μA

ORDERING INFORMATION



MARKING

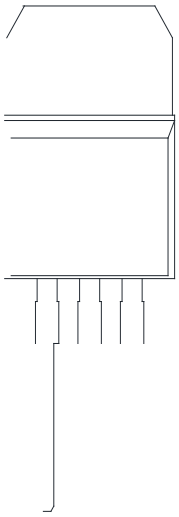


FIG.1: Maximum power dissipation versus RMS on-state current

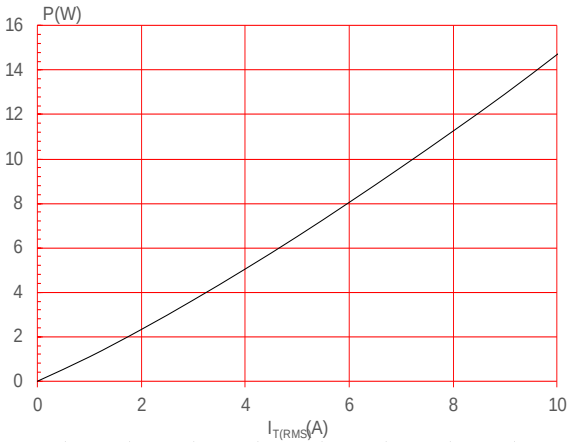
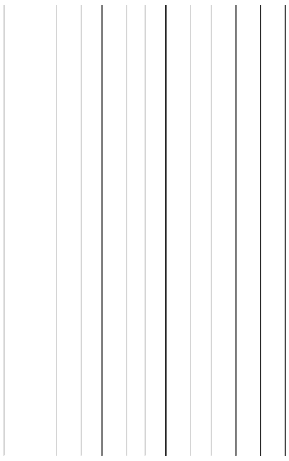


FIG.2: RMS on-state current versus case temperature

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



ORDERING INFORMATION

Ordering code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)		Package	Base qty (pcs)	Delivery mode
		- -				
JST08A-800B	800	50	70	TO-220A(Iso)	50	Tube

Document 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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