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

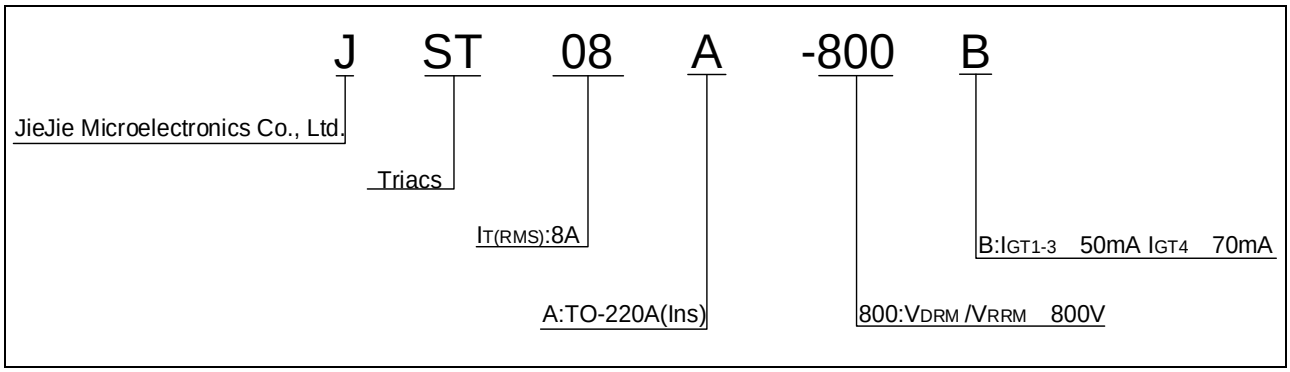
ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D=12V R_L=33Ω	- -	MAX.	50	mA
				7	
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

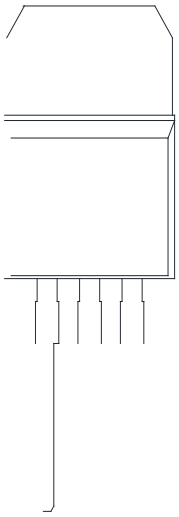


FIG.1: Maximum power dissipation versus RMS on-state current

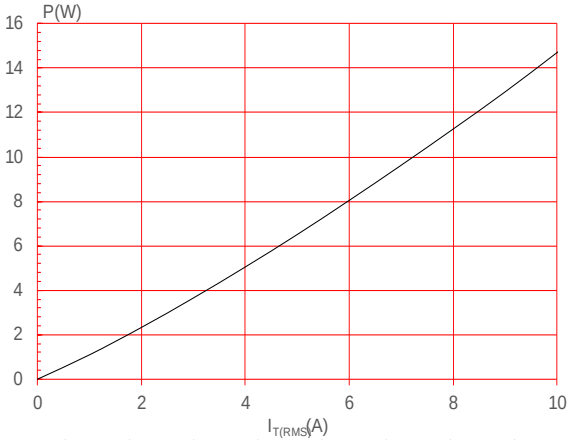


FIG.2: RMS on-state current versus case temperature

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

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document supersedes and replaces all information previously supplied.

is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd.