



## JST16F-800B 16A TRIAC

Rev.A.1.1

### DESCRIPTION:

The JST16F-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 external plastic package, JST16F-800B provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.

### MAIN FEATURES

### RATINGS

Parameter	Symbol	Value	Unit
Storage temperature range	$T_{stg}$	-40-150	
Operating temperature range	$T_j$	-40-125	
Reverse blocking voltage ( $T_j=25^\circ\text{C}$ )	$V_{DRM}$	800	V
Forward blocking voltage ( $T_j=25^\circ\text{C}$ )	$V_{RRM}$	800	V
Rated current ( $T_c=73^\circ\text{C}$ )	$I_{T(RMS)}$	16	A
Peak on-state current ( $T_j=25^\circ\text{C}$ )	$I_{TSM}$	160	A
Peak on-state current ( $T_j=25^\circ\text{C}$ )		176	
Surge current ( $t=10\text{ms}, T_j=25^\circ\text{C}$ )	$I^2t$	128	$\text{A}^2\text{s}$
Reverse-state current ( $T_j=125^\circ\text{C}$ )	-	100	$\text{A}/\mu\text{s}$
	$di/dt$		



Peak gate power	$P_{GM}$	10	W
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	
$I_{GT}$	$V_D=12V R_L=33$	- -	MAX.	50	mA
				70	
$V_{GT}$		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.	70	mA
				100	
$I_H$	$I_T=500mA$		MAX.	60	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	1000	V/ $\mu s$
(dV/dt) <sub>c</sub>	(dI/dt) <sub>c</sub> =7A/ms, $T_j=125$		MIN.	12	V/ $\mu s$
$t_{on}$	$I_G=80mA I_A=400mA I_R=40mA$ $T_j=25$		TYP.	5	$\mu s$
$t_{off}$				50	

**STATIC CHARACTERISTICS**

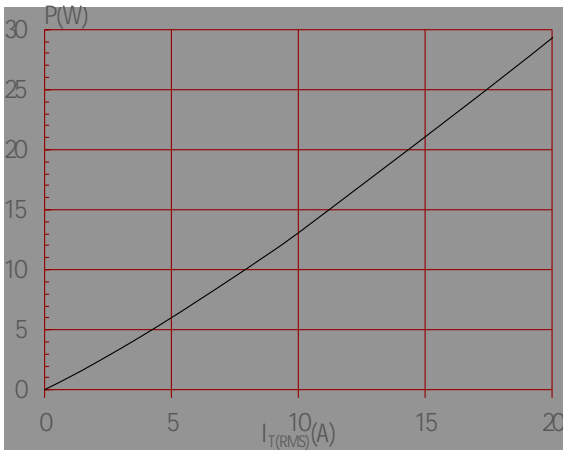
Symbol	Parameter	Value(MAX.)	Unit	
$V_{TM}$	$I_{TM}=22.5A t_p=380\mu s$ $T_j=25$	1.5	V	
$V_{TO}$	Threshold voltage $T_j=125$	0.77	V	
$R_D$	Dynamic resistance $T_j=125$	30	m	
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	5	$\mu A$
$I_{RRM}$		$T_j=125$	0.5	mA

**THERMAL RESISTANCES**

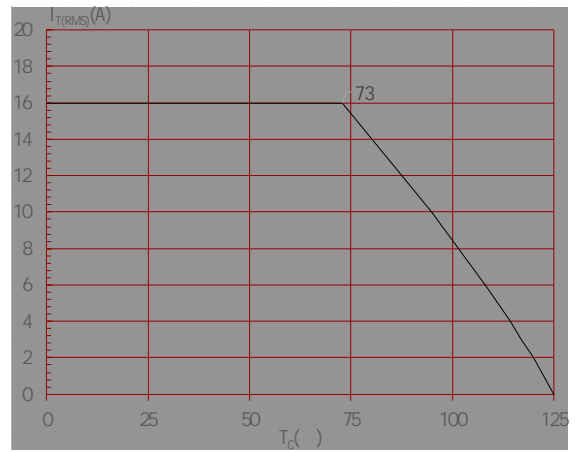
Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	2.3	/W
$R_{th(j-a)}$	junction to ambient (AC)	60	/W



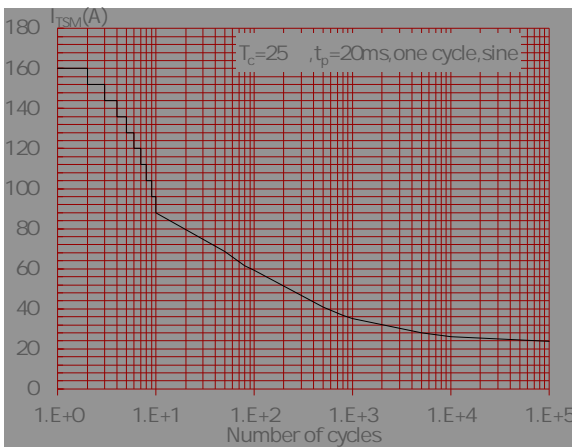
**FIG.1:** Maximum power dissipation versus RMS on-state current



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

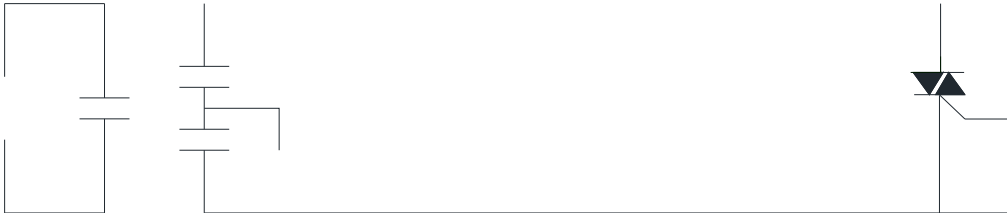


**FIG.3:** Surge peak on-state current versus number of cycles



**FIG.4:** On-state characteristics

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








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.  
Copyright © 2025 Jiangsu JieJie Microelectronics Co., Ltd. All rights reserved.