

**JST08F-600B 8A TRIAC**

Rev.A.1.1

**DESCRIPTION:**

The JST08F-600B 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, JST08F-600B provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F 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 ( $T_j=25^\circ\text{C}$ )	$V_{DRM}$	600	V
Repetitive peak reverse voltage ( $T_j=25^\circ\text{C}$ )	$V_{RRM}$	600	V
RMS on-state current ( $T_c=93^\circ\text{C}$ )	$I_{T(RMS)}$	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 ( $I_G=2 \times I_{GT}$ , $f=100\text{Hz}$ , $T_j=125^\circ\text{C}$ )	$di/dt$	100	$\text{A}/\mu\text{s}$
		50	

Peak gate current ( $t_p$ )

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.	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.	50	mA
				100	

$I_H$   $I_T=200mA$

MAX.

R

MAX. VVVVVV

ORDERING INFORMATION

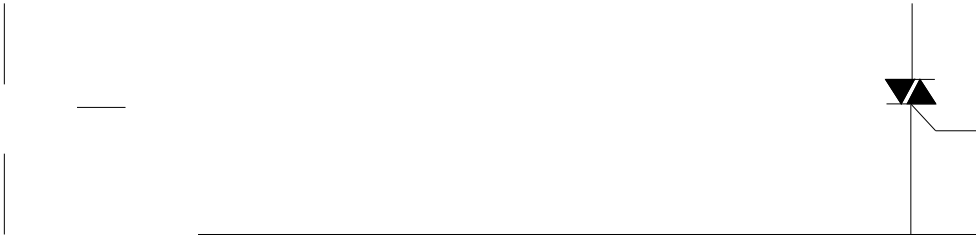
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**FIG.1:** Maximum power dissipation versus RMS on-state current

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



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



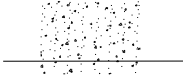
**ORDERING INFORMATION**

Order code	Voltage V <sub>DRM</sub> /V <sub>R<sub>RRM</sub></sub> (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		- -				
<b>JST08F-600B</b>	<b>600</b>	<b>50</b>	<b>70</b>	<b>TO-220F(Ins)</b>	<b>50</b>	<b>Tube</b>

**Document Revision History**


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

PACKAGE MECHANICAL DATA



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