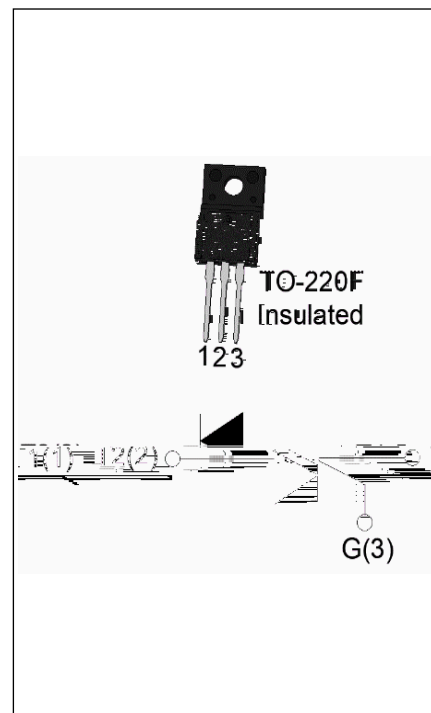


JST24F-600B 25A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST24F-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, JST24F-600B provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.


MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	25	A
V_{DRM}/V_{RRM}	600	V
$I_{GT} / / /$	50/50/50/70	mA

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}	600	V
Repetitive peak reverse voltage (T _j =25)		V _{RRM}	600	V
RMS on-state current (T _c 72)		I _{T(RMS)}	25	A
Non repetitive surge peak on-state current (full cycle , t _p =20ms , T _j =25)		I _{TSM}	250	A
Non repetitive surge peak on-state current (full cycle , t _p =16.6ms , T _j =25)			275	
I ² t value for fusing (t _p =10ms , T _j =25)		I ² t	340	A ² s
Critical rate of rise of on-state current (I _G =2 I _{GT} , f=100Hz , T _j =125)	-	di/dt	100	A/μs
	-		50	
Peak gate current (t _p =20μs , T _j =125)		I _{GM}	4	A
Average gate power dissipation (T _j =125)		P _{G(AV)}	0.5	W
Peak gate power		P _{GM}	10	W

Peak pulse voltage ($T_j=25$; non-repetitive,off-state;FIG.7)	V_{pp}	2	kV
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ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33\Omega$	- -	MAX.	50	mA
				70	

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

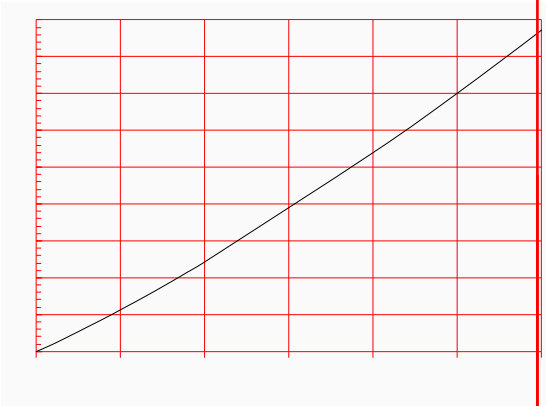


FIG.3: Surge peak on-state current versus number of cycles

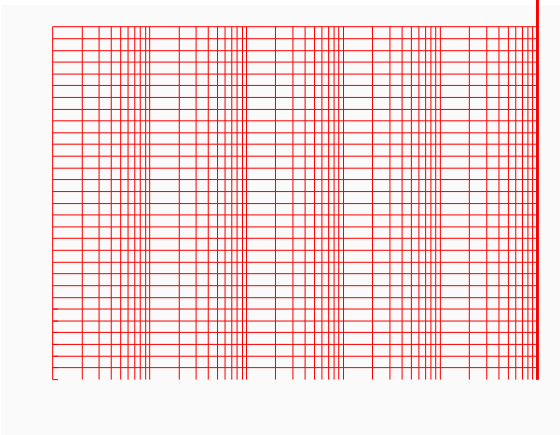


FIG.2: RMS on-state current versus case temperature

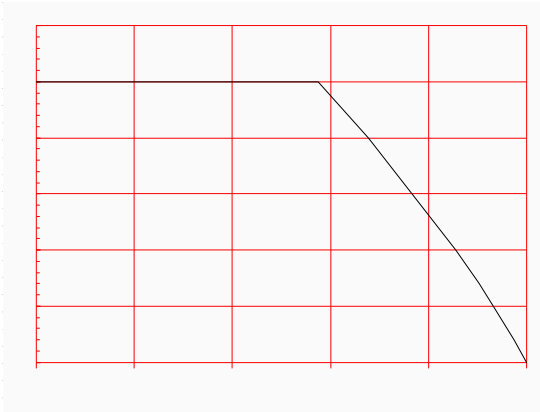
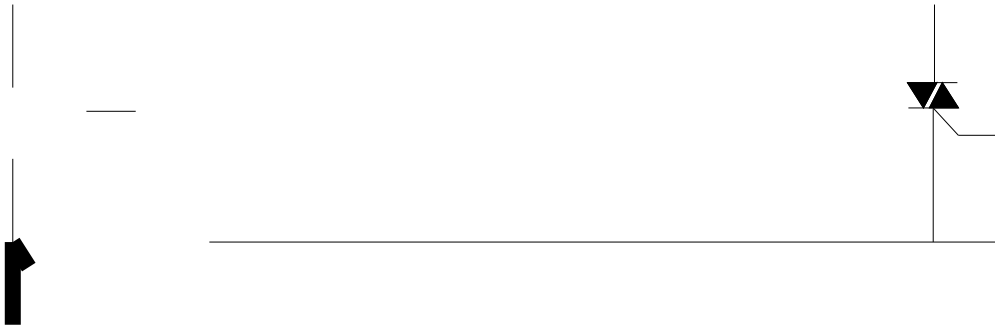


FIG.4: On-state characteristics $I_{DS(on)}$ vs V_{DS}



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



ORDERING INFORMATION

Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		- -				
JST24F-600B	600	50	70	TO-220F(Ins)	50	Tube

Document Revision History

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

