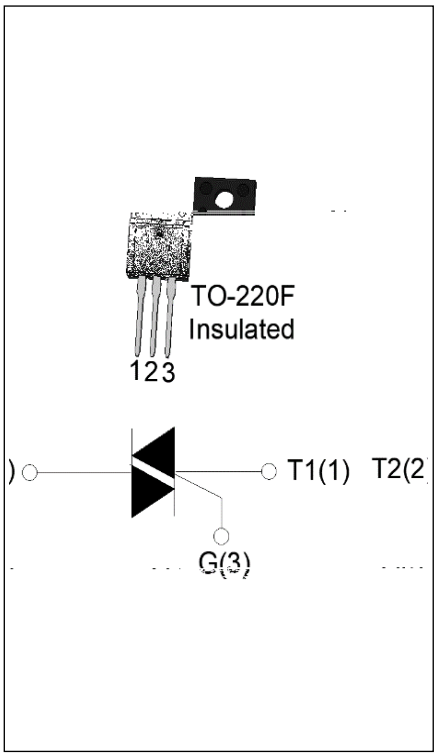
JST136F-800D 4A TRIAC

Rev.A.1.0

DESCRIPTION:

The JST136F-800D 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, JST136F-800D 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
$I_{T(RMS)}$	4	A
V_{DRM} /V_{RRM}	800	V
I_{GT} / / /	5/5/5/10	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}	800	V
Repetitive peak reverse voltage (T_j=25)		V_{RRM}	800	V
RMS on-state current (T_C 86)		$I_{T(RMS)}$	4	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)		I_{TSM}	35	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)			38.5	
I^2t value for fusing (t_p=10ms , T_j=25)		I^2t	6.1	A^2s
Critical rate of rise of on-state current (I_G=2 I_{GT} , f=100Hz , T_j=125)	- -	dI/dt	50	A/μs
			40	
Peak gate current (t_p=20μs , T_j=125)		I_{GM}	2	A
Average gate power dissipation (T_j=125)		$P_{G(AV)}$	0.5	W

Peak gate power	P_{GM}	5	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	3.5	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D=12V R_L=33Ω	- -	MAX.	5	mA
				10	
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.	15	mA
		-		25	
I_H	I_T=100mA		MAX.	15	mA
dV/dt	V_D=540V Gate Open T_j=110		MIN.	100	V/μs
(dV/dt)c	(dI/dt)c=1.8A/ms, T_j=110		MIN.	2.5	V/μs
t_{on}	I_G=20mA I_A=200mA I_R=20mA T_j=25		TYP.	1	μs
t_{off}				12	

STATIC CHARACTERISTICS

Symbol	Parameter	Value(MAX.)	Unit

ORDERING INFORMATION

J ST 136 F -800 D

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

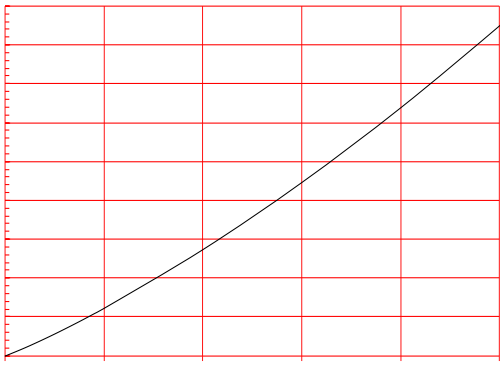


FIG.2: RMS on-state current versus case temperature

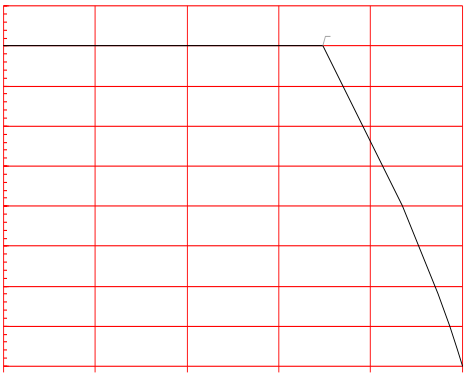


FIG.3: Surge peak on-state current versus number of cycles

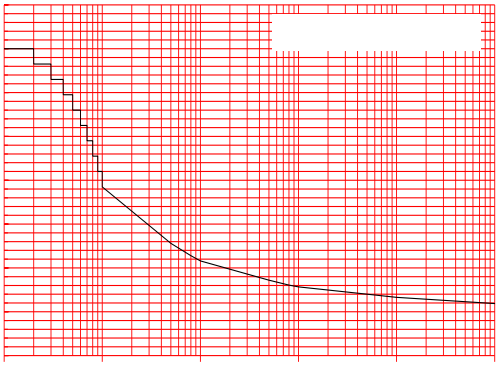


FIG.4: On-state characteristics

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ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		- -				
JST136F-800D	800	5	10	TO-220F(Ins)	50	Tube

Document Revision History

Date	Revision	Changes

PACKAGE MECHANICAL DATA