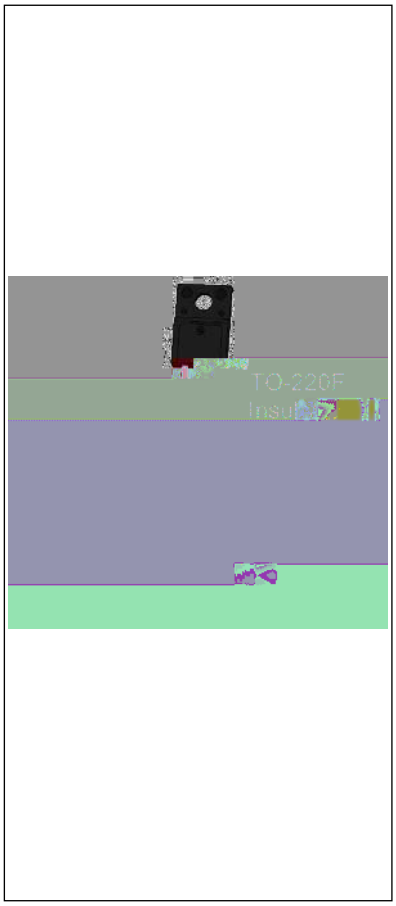
JST06F-800TW 6A TRIAC

Rev.A.1.1

The JST06F-800TW 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. JST06F-800TW snubberless triac is especially recommended for use on inductive loads. It can be driven directly through the MCU I/O port. By using an external plastic package, JST06F-800TW provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.



Symbol	Value	Unit
$I_{T(RMS)}$	6	A
V_{DRM} /V_{RRM}	800	V
I_{GT} / /	5/5/5	mA

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 098)	$I_{T(RMS)}$	6	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	65	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		72	
I^2t value for fusing (t_p=10ms , T_j=25)	I 2t	21	A^2s
Critical rate of rise of on-state current (I_G=2 hI GT , f=100Hz , T_j=125)	dI/dt	50	A/µs

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}	3.5	kV

(T_j=25 unless otherwise specified)

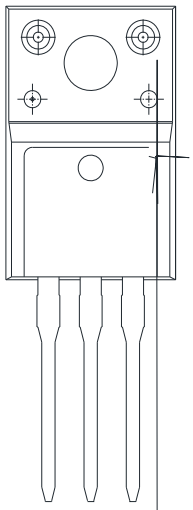
Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	5	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	V_D =V_{DRM} T_j =125 R_L =3.3kΩ	- -	MIN.	0.2	V
I_L	I_G =1.2I_{GT}	-	MAX.	10	mA
				15	
I_H	I_T =100mA		MAX.	10	mA
dV/dt	V_D=540V Gate Open T_j =125		MIN.	100	V/μs
(dI/dt)c	(dV/dt)c=10V/μs, T_j=125		MIN.	0.5	A/ms
t_{on}	I_G=10mA I_A=200mA I_R=20mA T_j=25		TYP.	2	μs
t_{off}				20	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM} =8.5A t_p=380μs	T_j=25	1 .5	V
V_{TO}	Threshold voltage	T_j=125	0.82	V
R_D	Dynamic resistance	T_j=125	57	mΩ
I_{DRM}	V_D =V_{DRM} V_R =V_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=125	0 .3	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	3.2	/W
$R_{th(j-a)}$	junction to ambient (AC)	60	/W

J ST 06 F -800 TW

- J: JieJie Microelectronics Co., Ltd.
- ST: Triacs
- 06: $I_{T(RMS)}$:6A
- F: F:TO-220F(Ins)
- -800: 800:V_{DRM} /V_{RRM} 1 800V
- TW: TW:I_{GT1-3} 0 5mA

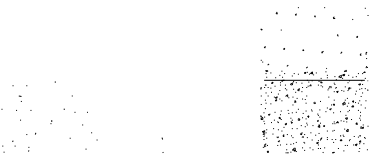


JST06F-800TW

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
JST06F-800TW	800	5	TO-220F(Ins)	50	Tube

Document Revision History

Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated
Oct.13, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA



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