JST16F-800SW 16A TRIAC

Rev.A.1.2

DESCRIPTION:

The JST16F-800SW 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. JST16F-800SW 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, JST16F-800SW 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

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}	4	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33	- -	MAX.	10	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	V_D =V_{DRM} T_j =125 R_L =3.3k	- -	MIN.	0.2	V
I_L	I_G =1.2I_{GT}	-	MAX.	25	mA
				30	
I_H	I_T =500mA		MAX.	15	mA
dV/dt	V_D=540V Gate Open T_j =125		MIN.	1000	V s
(dI/dt)c	(dV/dt)c=1 9 V_j=1 25		MIN.	5	A/ms
t_{on}	I_G=20mA I_A=200mA I_R=20mA T_j=25		TYP.	5	s
t_{off}				30	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX .)	Unit
V_{TM}	I_{TM} =22.5A t_p=380 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	P
I_{DRM}	V_D =V_{DRM} V_R =V_{RRM}	T_j=25	5	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

ORDERING INFORMATION

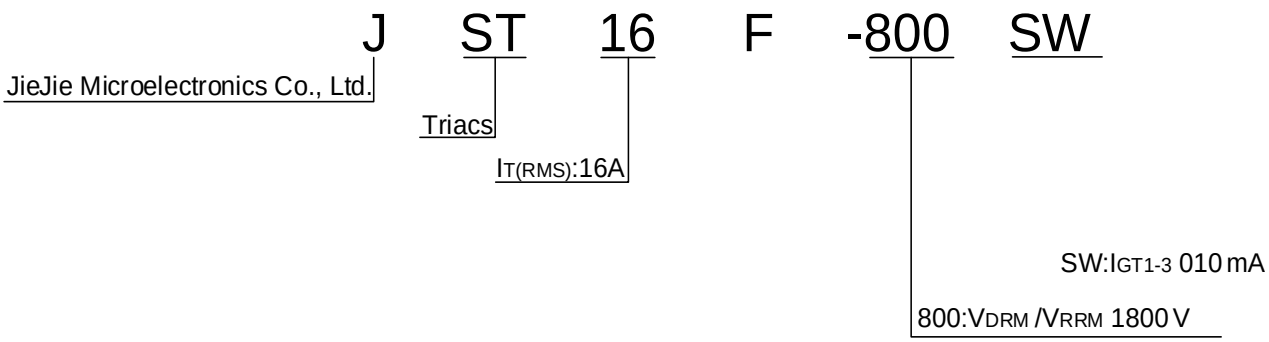


FIG.1: Maximum power dissipation versus RMS on-state current

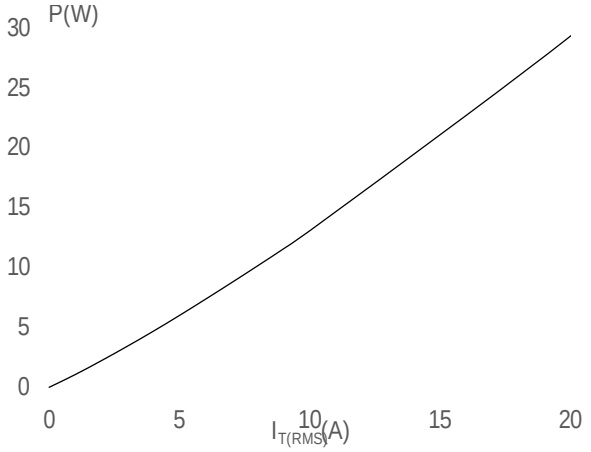


FIG.2: RMS on-state current versus case temperature

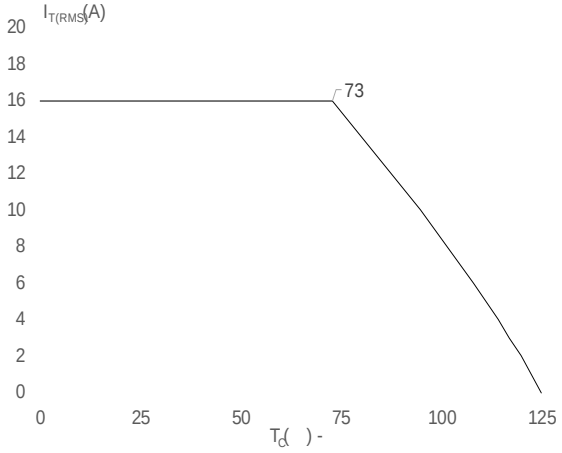
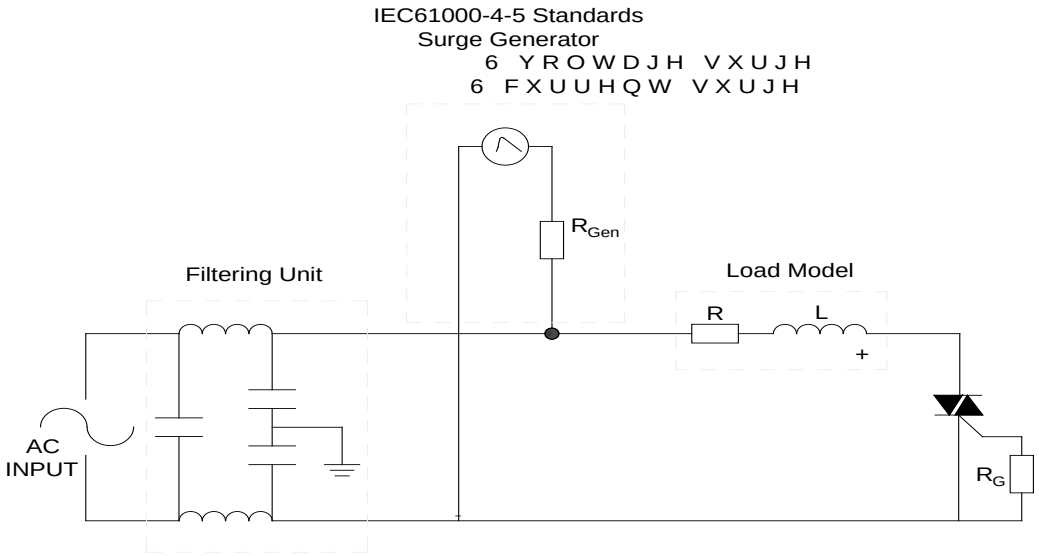


FIG.7 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



PACKAGE MECHANICAL DATA



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