



JST16F-1200TW 16A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST16F-1200TW 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-1200TW 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-1200TW provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.

MAIN FEATURES

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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	kV

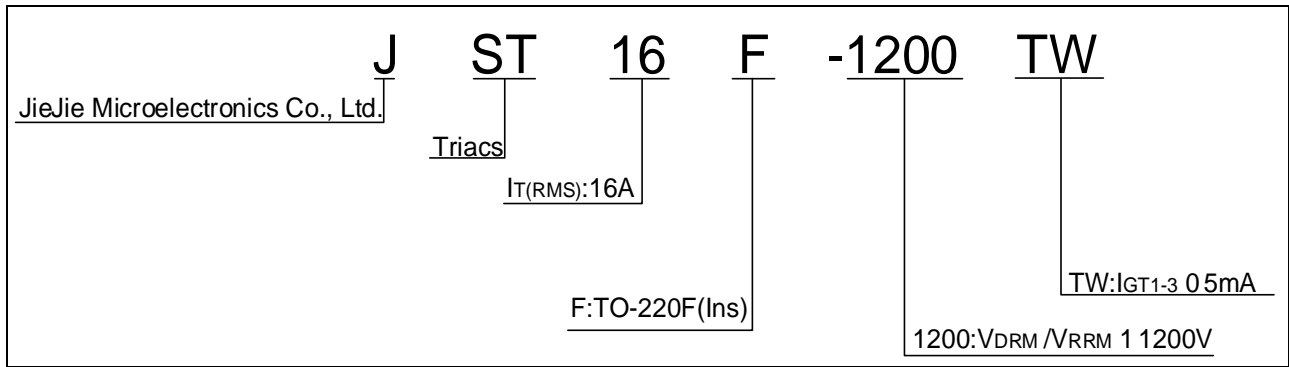
ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V R_L=33$	- -	MAX.	5	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.	15	mA
				20	
I_H	$I_T=500mA$		MAX.	15	mA
dV/dt	$V_D=800V$ Gate Open $T_j=125$		MIN.	20	V/ μs
$(dI/dt)_c$	$(dV/dt)_c=10V/\mu s T_j=125$		MIN.	1.5	A/ms
t_{on}	$I_G=10mA I_A=200mA I_R=20mA$ $T_j=25$		TYP.	3	μs
t_{off}				25	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=22.5A t_p=380\mu s$	$T_j=25$	1.5	V
V_{TO}	Threshold voltage	$T_j=125$	0.77	V

ORDERING INFORMATION



MARKING

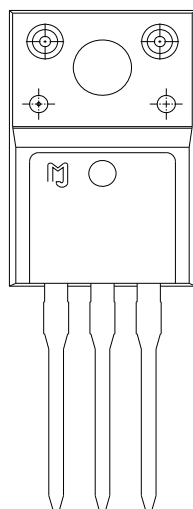


FIG.1: Maximum power dissipation versus RMS on-state current

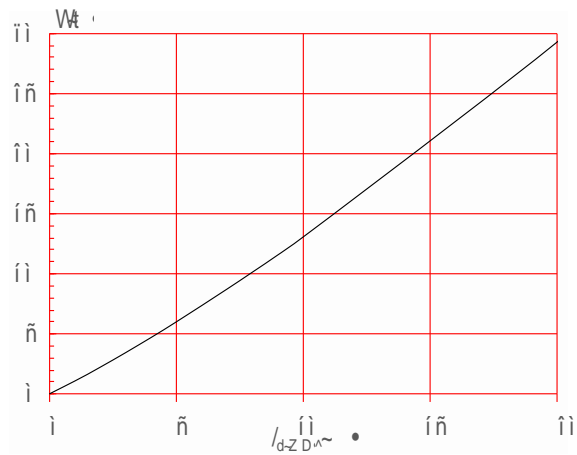


FIG.3: Surge peak on-state current versus number of cycles



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

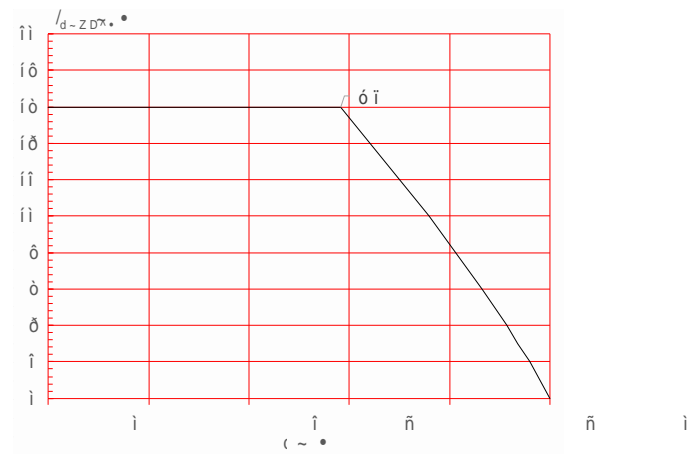
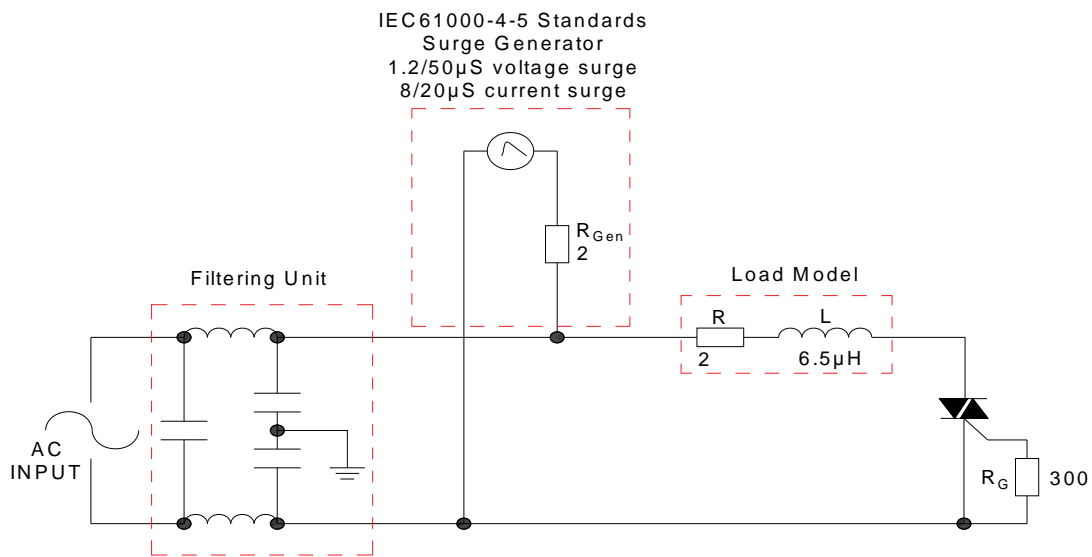


FIG.4: On-state characteristics

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



LEAD FORMING AND SOLDERING

Refer to the application note "Assembly Instructions for Thyristors in Through-hole Package" released by JieJie
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ORDERING INFORMATION

Order code	Voltage V _{DRM} /V _{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
JST16F-1200TW	1200	5	TO-220F(Ins)	50	Tube

Document Revision History

Date	Revision	Changes
Apr.12, 2023	A.1.0	Last updated
Oct.13, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA



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