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 FEATURESM ξ ž ŭ u s

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)

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.	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/μs 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

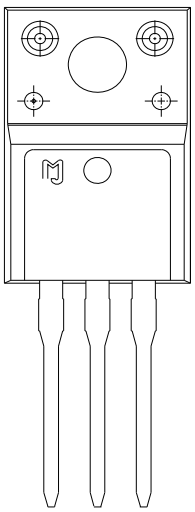
V_{TM}	I_{TM} =22.5A t_p=380μs	T_j=25	1 .5	V
V_{TO}	Threshold voltage	T_j=125	0 .77	V

ORDERING INFORMATION

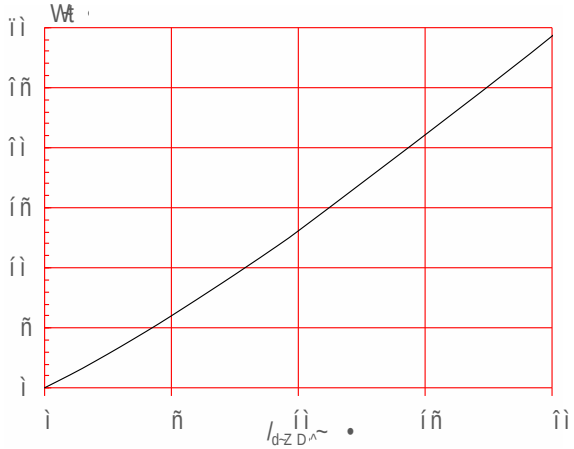
J ST 16 F -1200 TW

- J: JieJie Microelectronics Co., Ltd.
- ST: Triacs
- 16: $I_{T(RMS)}$:16A
- F: F:TO-220F(Ins)
- -1200: 1200:V_{DRM} /V_{RRM} 1 1200V
- TW: TW:I_{GT1-3} 0 5mA

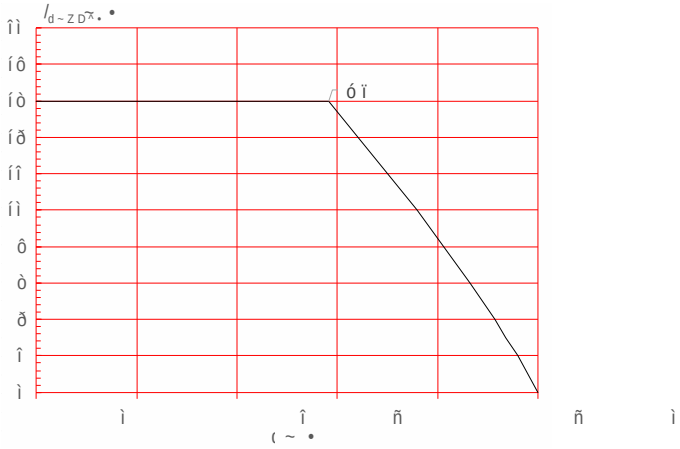
MARKING



Maximum power dissipation versus RMS on-state current



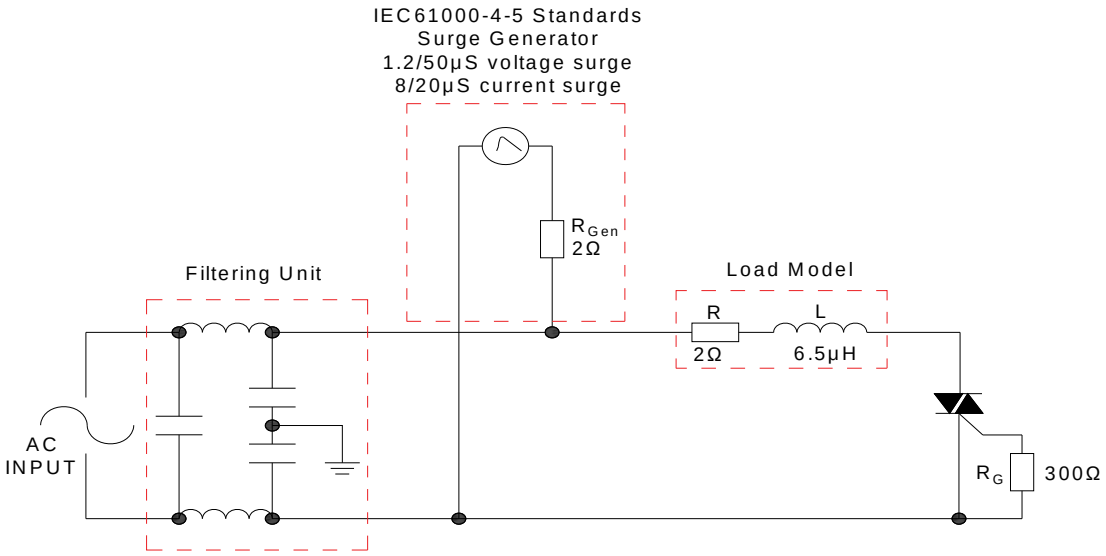
RMS on-state current versus case temperature



Surge peak on-state current versus number of cycles

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 D] Œ } o š Œ } v] • X

ORDERING INFORMATION

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