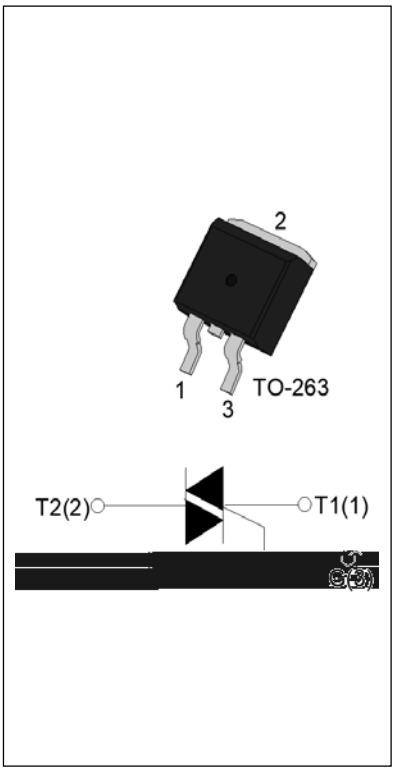
JST12E-800TW 12A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST12E-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. JST12E-800TW snubberless triac is especially recommended for use on inductive loads. It can be driven directly through the MCU I/O port. Package TO-263 is RoHS compliant.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	12	A
V_{DRM} /V_{RRM}	800	V
I_{GT} / /	5/5/5	mA

ABSOLUTE MAXIMUM RATINGS

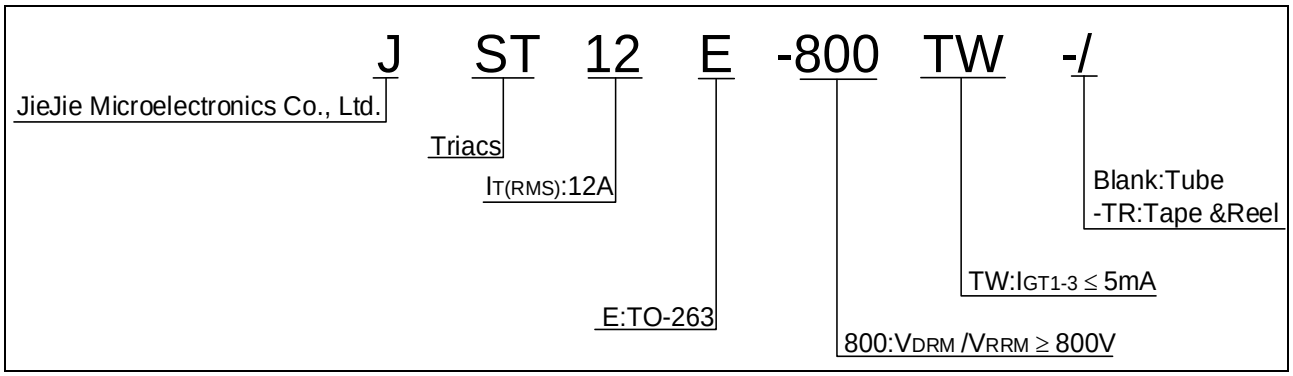
Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-125	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current ($T_C \leq$ 103)	$I_{T(RMS)}$	12	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	120	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		132	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	72	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
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.8)	V_{pp}	3.5	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol **Test Condition** **Quadrant**

ORDERING INFORMATION



MARKING XXX XXX

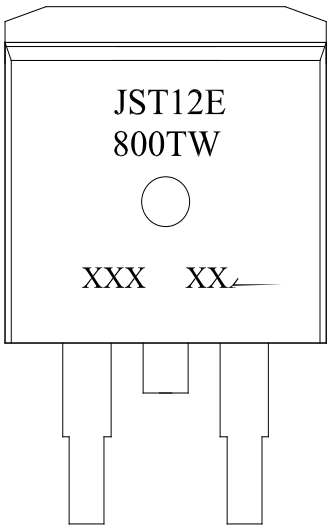
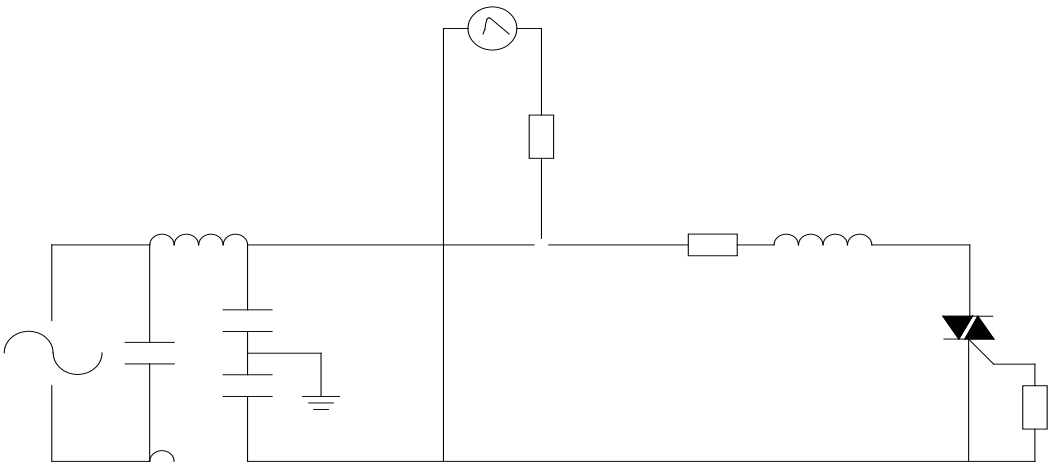


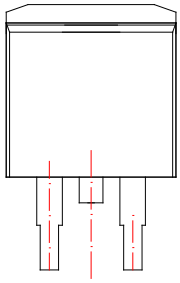
FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



ORDERING INFORMATION

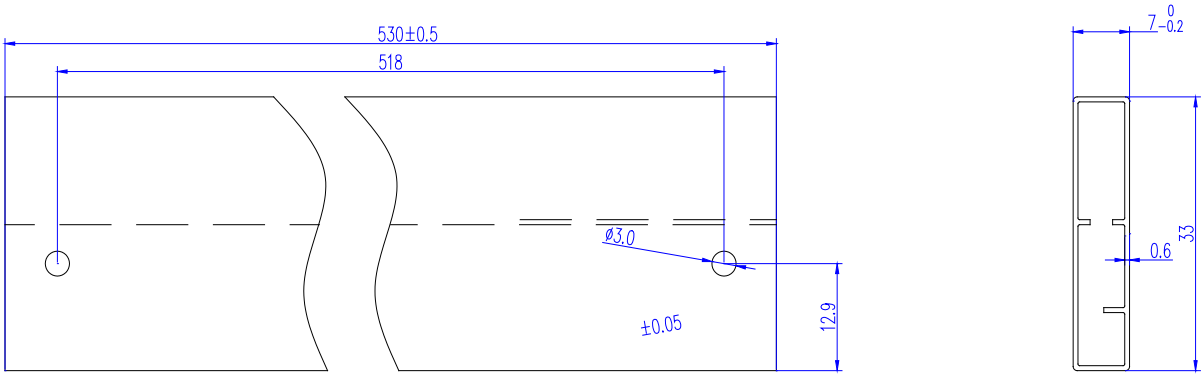


PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	9.40		9.60	0.370		0.378
D	2.40			0.094		
E	1.20		1.50	0.047		0.059
F	0.75		0.85	0.029		0.033

DELIVERY MODE



Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information provided in this document have no infringement of i0Aten12se.Jiangsu