

**JST136H-800D 4A TRIAC**

Rev.A.1.1

DESCRIPTION:

The JST136H-800D 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. From T2 terminals to external heatsink. Package TO-251 is RoHS compliant.

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	4	A
V_{DRM}/V_{RRM}	800	V

$$I_{GT} / \frac{1}{2} \times \times \hat{O}$$

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 ≤ 83℃)		I _{T(RMS)}	4	A
Non repetitive surge peak on-state current (full cycle , t _p =20ms , T _j =25℃)		I _{TSM}	35	A
Non repetitive surge peak on-state current (full cycle , t _p =16.6ms , T _j =25℃)			38.5	
I ² t value for fusing (t _p =10ms , T _j =25℃)		I ² t	6.1	A ² s
Critical rate of rise of on-state current (I _G =2 × I _{GT} , f=100Hz , T _j =125℃)	- -	di/dt	50	A/μs
			40	
Peak gate current (t _p =20μs , T _j =125℃)		I _{GM}	2	A
Average gate power dissipation (T _j =125℃)		P _{G(AV)}	0.5	W
Peak gate power		P _{GM}	5	W
Peak pulse voltage (T _j =25℃ ; non-repetitive,off-state;FIG.7)		V _{pp}	3.5	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I _{GT}	V _D =12V R _L =33Ω	- -	MAX.	5	mA
				10	
V _{GT}		ALL	MAX.	1	V
V _{GD}	V _D =V _{DRM} T _j =125 R _L =3.3kΩ	ALL	MIN.	0.2	V
I _L	I _G =1.2I _{GT}	-	MAX.	15	mA
		-		25	
I _{AS}	I _{AS} =100mA		MAX.	15	mA
dv/dt	V _B =540V Gate Open T _j =110		MIN.	100	V/μs
(dV/dt) _c	(dI/dt) _c =1.8A/ms, T _j =110		MIN.	2.5	V/μs
t _{on}	I _G =20mA I _A =200mA I _R =20mA T _j =25		TYP.	1	μs
t _{off}				12	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V _{TM}	I _{TM} =5A t _p =380μs	T _j =25	1.7	V
V _{TO}	Threshold voltage	T _j =125	0.94	V
RD	Dynamic resistance	T _j =125	124	mΩ
I _{DRM}	V _D =V _{DRM} V _R =V _{RDM}	T _j =25	5	μA
I _{RDM}		T _j =125	0.4	m

ORDERING INFORMATION

J ST 136 H -800 D T

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

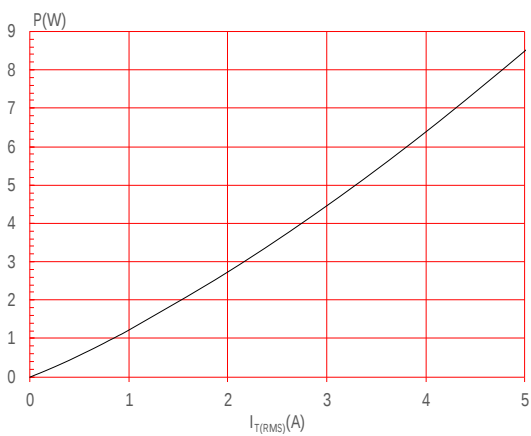


FIG.2: RMS on-state current versus case temperature

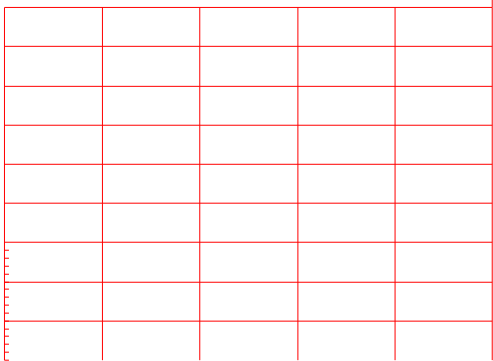
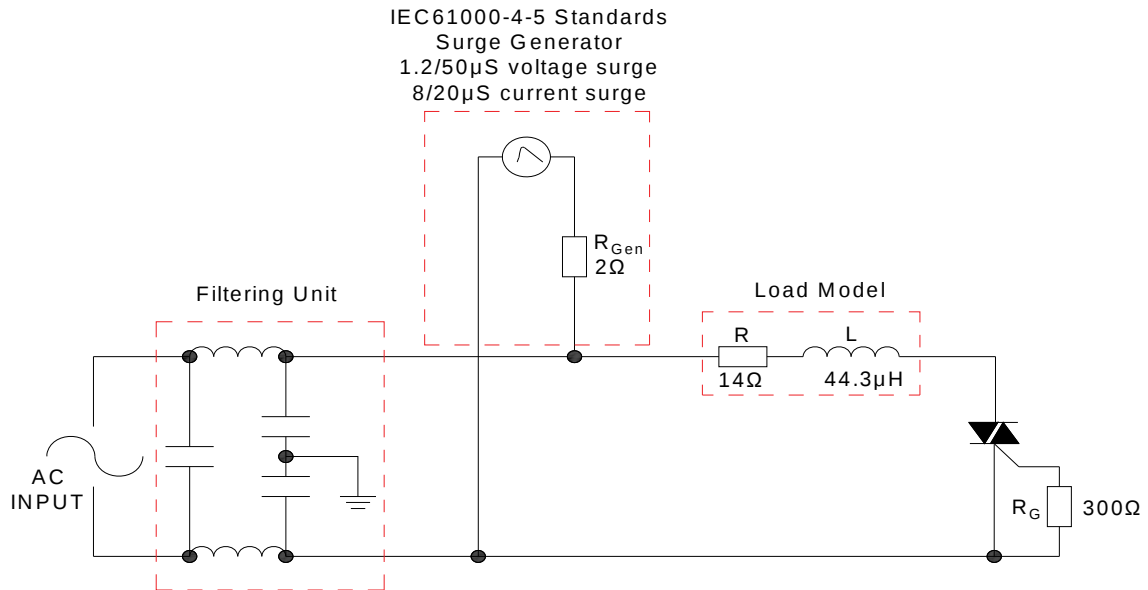


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



LEAD FORMING AND SOLDERING

Refer to the application note “Assembly Instructions for Thyristors in Through-hole Package” released by JieJie Microelectronics

ORDERING INFORMATION

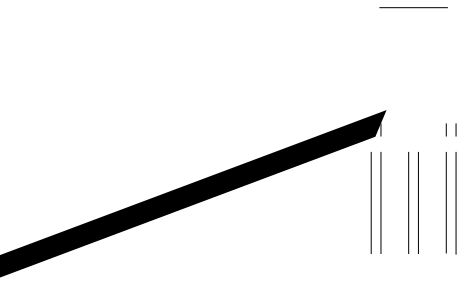
Order code	Voltage V _{DRM} /V _{RPM} (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		-	-			
JST136H-800D	800	5	10	TO-251	80	Tu

Date	Revision	Changes

PACKAGE MECHANICAL DATA

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