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} / » ÕÕÒ я '

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 ($T_C \leq 83$)		$I_{T(RMS)}$	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^2t value for fusing (t_p=10ms , T_j=25)		I^2t	6.1	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, 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	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(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_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=125	0.4	m

ORDERING INFORMATION

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

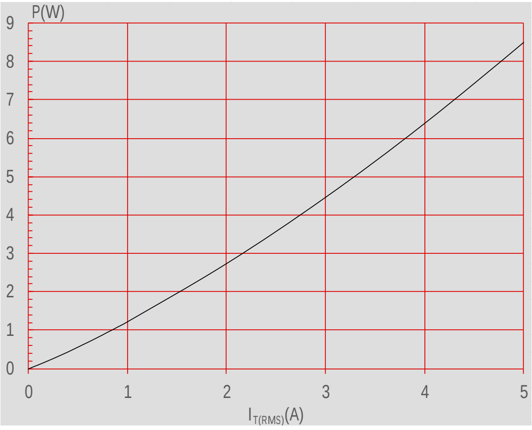


FIG.2: RMS on-state current versus case temperature

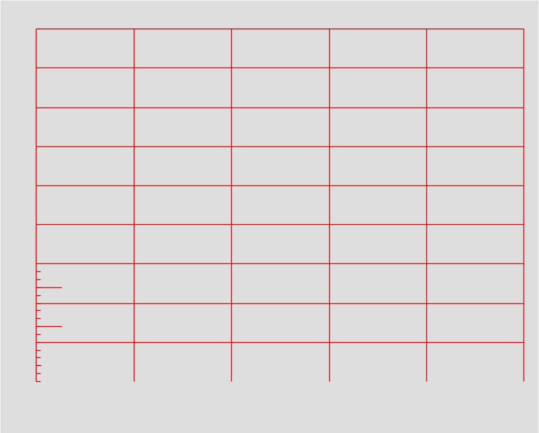
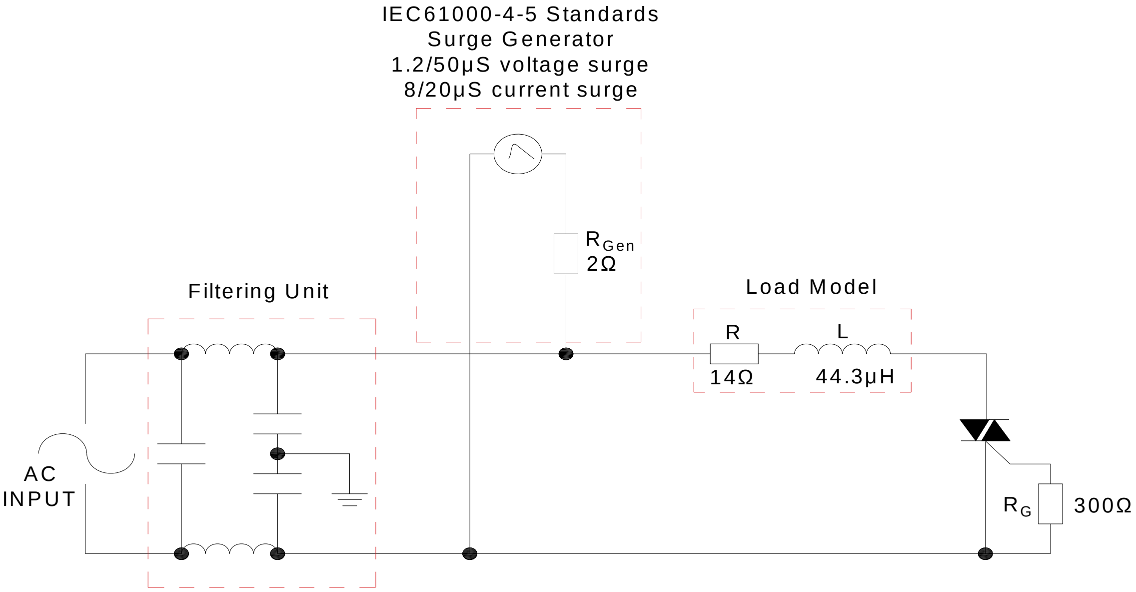


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



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_{RRM} (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		- -				
JST136H-800D	**800**	**5**	**10**	**TO-251**	**80**	**Tu**

Date	Revision	Changes φ н l

PACKAGE MECHANICAL DATA ầ A Ҷ Λ.