JST06H-600BW 6A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST06H-600BW 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. JST06H-600BW snubberless triac is especially recommended for use on inductive loads. From T2 terminals to external heatsink. Package TO-251 is RoHS compliant.

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	6	A
V_{DRM} /V_{RRM}	600	V
I_{GT} / /	50/50/50	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}	600	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	600	V
RMS on-state current (T_C 91)	$I_{T(RMS)}$	6	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	65	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		72	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	21	A^2s
Critical rate of rise of on-state current (I_G=2 I_{GT} , f=100Hz , T_j=125)	dI/dt	100	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.7)	V_{pp}	4	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	50	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.	70	mA
				80	
I_H	I_T =100mA		MAX.	50	mA

dV/dt V_D=400V Gate Ope*481 0.48 re f 496.32 561.6 41.999 0.48 re f 538.32 5312 132.6 5

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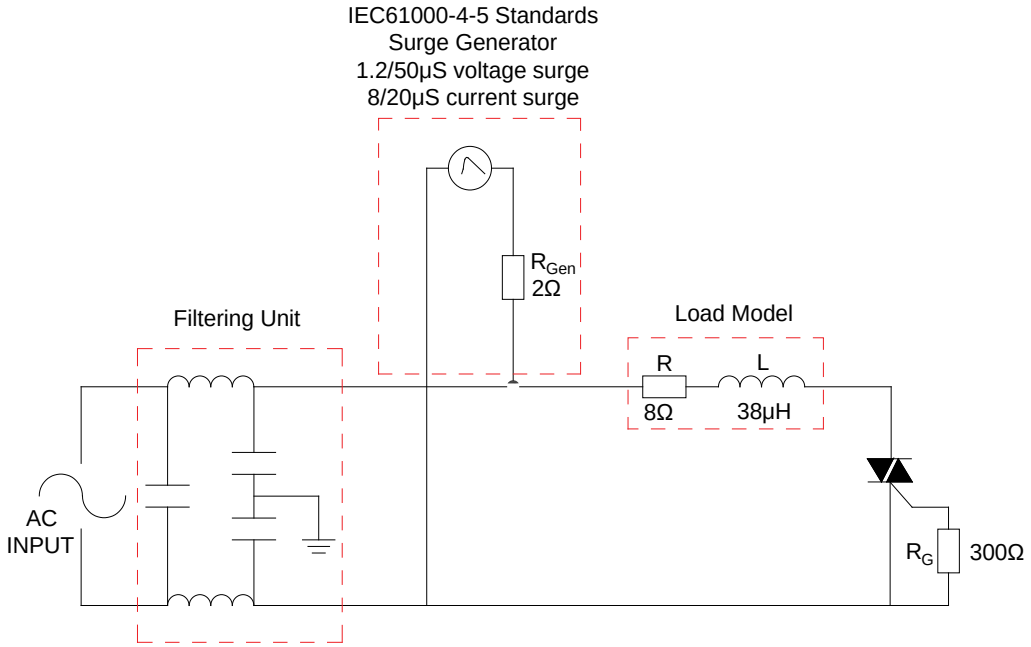
FIG.1: Maximum ¡ sipation versus RMS

s)2TJ 0 Tc 0 Tw 1.5]T、 1 Tf 0.03 Tc -0.006(n)1(i)-sin v(o)11.9((us)1ent4(i)-.3(i)-4.3(o)11.6(n v)12(c(n a)12.4(

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



ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		H I- J			
JST06H-600BW	600	50	TO-251	80	Tube

Document Revision History

Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated
Oct.16, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

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