JST[redacted] 6A TRIAC

Rev.A.1.1

DESC

The [redacted] triac is suitable for general purpose AC
switc sed as an ON/OFF function in
appli heating regulation, induction motor
starti hase control operation in light
dimm d controllers. JST06A-600TW
snub specially recommended for use on
induc be driven directly through the MCU
I/O p internal ceramic pad, JST06A-600TW
provi lation voltage of 2500 VRMS,
comp andards (File ref: E252906).
Pack RoHS compliant.

MAI

S[redacted]	Value	Unit
[redacted]	6	A
VD[redacted]	600	V
I[redacted]		

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 100)	$I_{T(RMS)}$	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	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.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
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.	10	mA
				15	
I_H	I_T =100mA		MAX.	10	mA
dV/dt	V_D=400V Gate Open T_j =125		MIN.	150	V/μs
(dI/dt)c	(dV/dt)c=10V/μs, T_j=125		MIN.	0.5	A/ms
t_{on}	I_G=10mA I_A=200mA I_R=20mA T_j=25		TYP.	2	μs
t_{off}				20	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM} =8.5A t_p=380μs	T_j=25	1.5	V
V_{TO}	Threshold voltage	T_j=125		

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

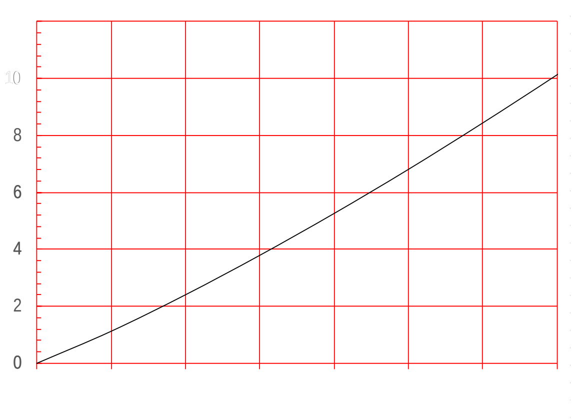
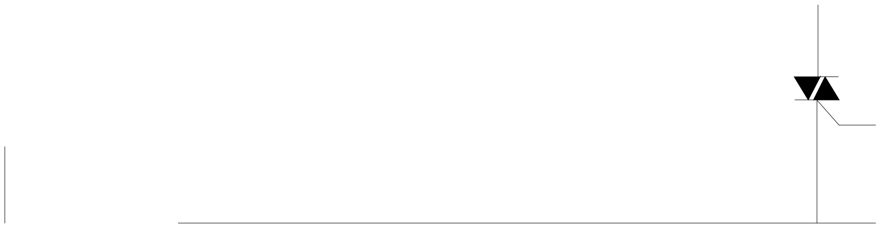


FIG.2: RMS on-state current versus case temperature

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



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