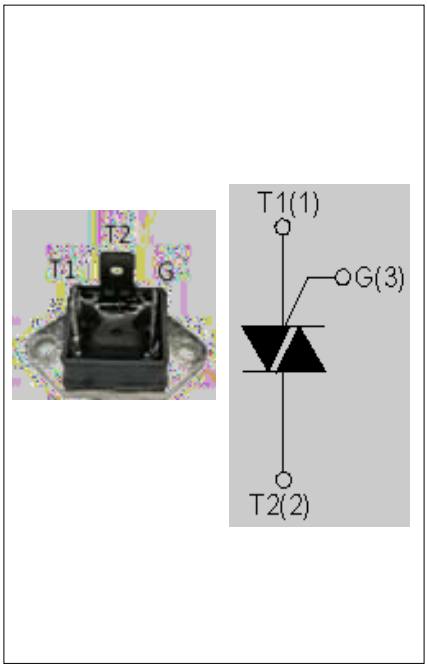
JST41T Series 41A TRIACs

Rev.4.2 July 13 2021

DESCRIPTION:

JST41T series triacs, with high ability to withstand the shock loading of large current, provide high dv/dt rate with strong resistance to electromagnetic interface. With high commutation performances, 3 quadrants products especially recommended for use on inductive load.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	41	A
V_{ISO}	2500	V
V_{DRM} /V_{RRM}	600 and 800 and 1200 and 1600	V

ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Storage 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 /800/1200/1600	V
Repetitive peak reverse voltage (T_j=25)		V_{RRM}	600 /800/1200/1600	V
Non repetitive surge peak off-state voltage		V_{DSM}	V_{DRM} +100	V
Non repetitive peak reverse voltage		V_{RSM}	V_{RRM} +100	V
RMS on-state current	TG-C (T_C=90)	$I_{T(RMS)}$	41	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)		I_{TSM}	400	A
I^2t value for fusing (t_P=10ms)		I^2t	880	A^2s
Critical rate of rise of on-state current (I_G =2×I_{GT})		dI/dt	50	A/μs
Peak gate current		I_{GM}	4	A
Average gate power dissipation		$P_{G(AV)}$	1	W
Peak gate power		P_{GM}	10	W
Insulation voltage(A.C,F=50Hz,1min)		V_{ISO}	2500	V

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4XDGUDQWV

6\PERO	7HVW &RQGLWLRQ	4XDGUDQW	9D
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9' 9

G9 GW

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
V_{TM}	I_{TM} =60A t_P=380μs	T_j=25	1.55	V
V_{TO}	Threshold voltage	T_j=125	0.85	V
R_d	Dynamic resistance	T_j=125	9	mΩ
I_{DRM}	V_D =V_{DRM} V_R =V_{RRM}	T_j=25	10	μA
I_{RRM}		T_j=125	5	mA

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	TG-C	1.45	/W
$R_{th(j-a)}$	junction to ambient(AC)	TG-C	5.9	/W
	Mounting torque(M4) Recommended value 1.0~1.4(10~14)		1.5(15)	N m

ORDERING INFORMATION

J ST 41 T -600 BW

JieJie Microelectronics Co.,Ltd
JieJie Semicoductor Co.,Ltd

PACKAGE MECHANICAL DATA

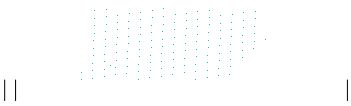


FIG.1 Maximum power dissipation versus RMS on-state current

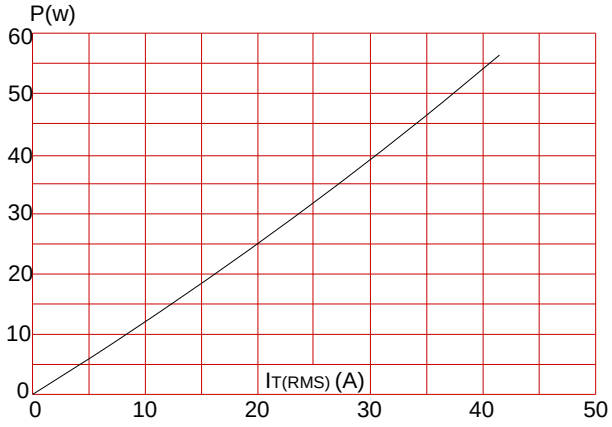


FIG.2: RMS on-state current versus case temperature

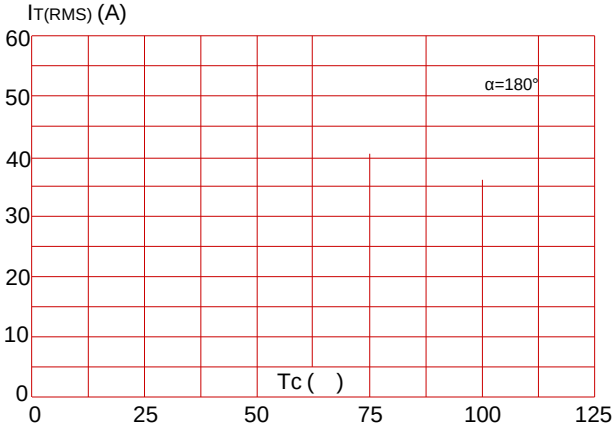


FIG.3: Surge peak on-state current versus number of cycles

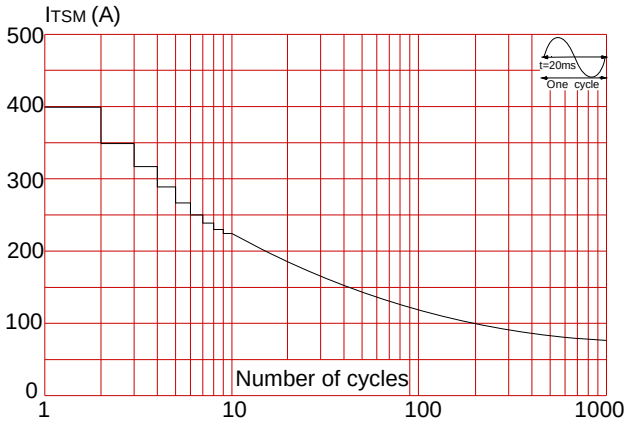


FIG.4: On-state characteristics (maximum values)

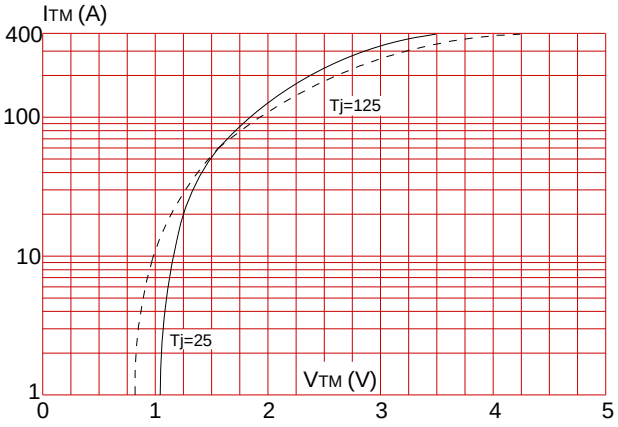


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp<20ms, and corresponging value of I^2t(dI/dt < 50A/μs)

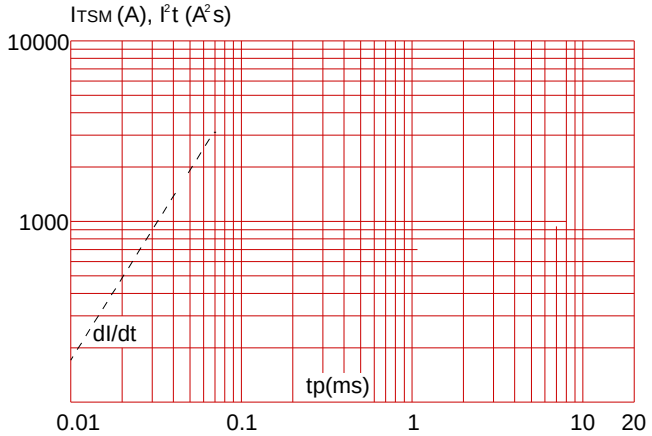
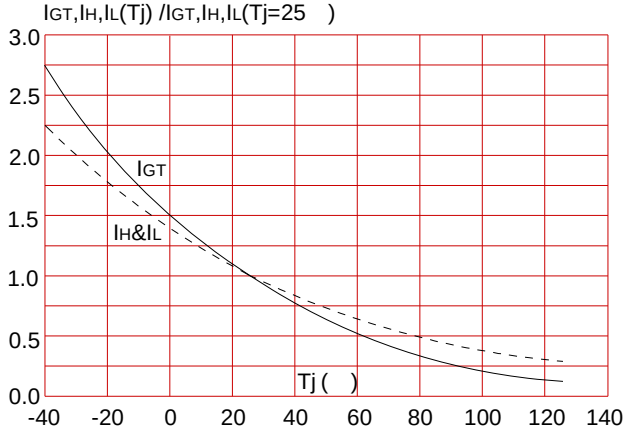


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature



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