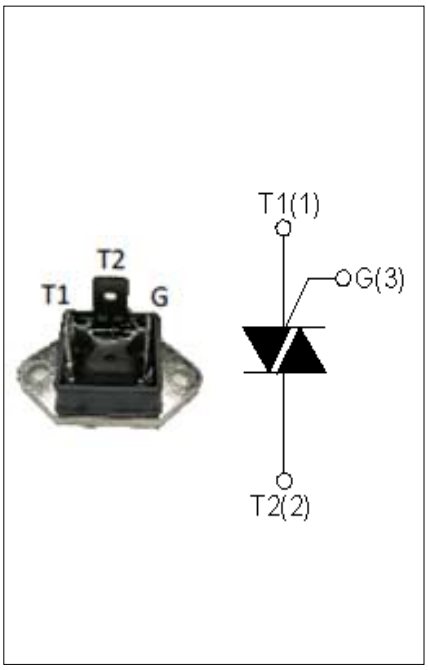
JST80 Series 80A TRIACs

Rev.4.2 July 12 2021

DESCRIPTION:

JST80 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
$I_{T(RMS)}$	80	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}Reak r 600 /800/1200/1600		V
Repetitive peak reverse voltage (T			
		V_{RRM} +100	V
RMS on-state current TG-C (T_C=90)	$I_{T(RMS)}$	80	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	I_{TSM}	800	A
I^2t value for fusing (t_P=10ms)	I^2t	3200	A^2s
Critical rate of rise of on-state current (I_G =2×I_{GT})	dI/dt	100	A/μs
Peak gate current	I_{GM}	8	A
Average gate power dissipation	$P_{G(AV)}$	2	W
Peak gate power	P_{GM}	10	W
Insulation voltage(A.C,F=50Hz,1min)	V_{ISO}	2500	V

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	1.3	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	80	mA
				100	
I_H	I_T =100mA		MAX	60	mA
dV/dt	V_D=2/3V_{DRM} Gate Open T_j =125		MIN	1000	V/μs
(dV/dt)c	Without snubber T_j=125		MIN	20	V/μs

PACKAGE MECHANICAL DATA

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

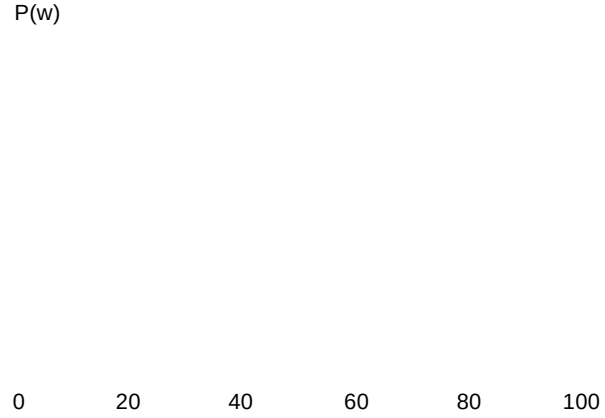


FIG.2: RMS on-state current versus case temperature

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

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