JST138C-800D 12A TRIAC

Rev.A.1.1

The JST138C-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-220C is RoJ -0.7wR52 Tm [1NdiJ6 (pur)7 (p)10 (os)4 (e)]TJ 084 53

(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
				20	
I_H	I_T=500mA		MAX.	10	mA
dV/dt	V_D=540V Gate Open T_j=125		MIN.	40	V/μs
(dV/dt)c	(dI/dt)c=5A/ms, T_j=110		MIN.	2	V/μs
t_{on}	I_G=20mA I_A=200mA I_R=20mA T_j=25		TYP.	3	μs
t_{off}				30	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM}=15A t_p=380μs	T_j=25	1.6	V
V_{TO}	Threshold voltage	T_j=125	0.8	V
R_D	Dynamic resistance	T_j=125	41	mΩ
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=125	0.4	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	1.5	/W
$R_{th(j-a)}$	junction to ambient (AC)	60	/W

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

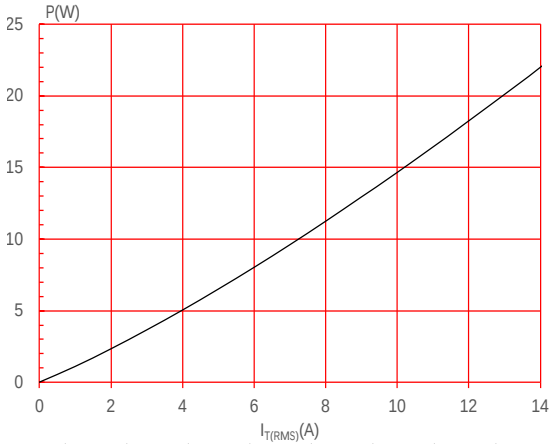
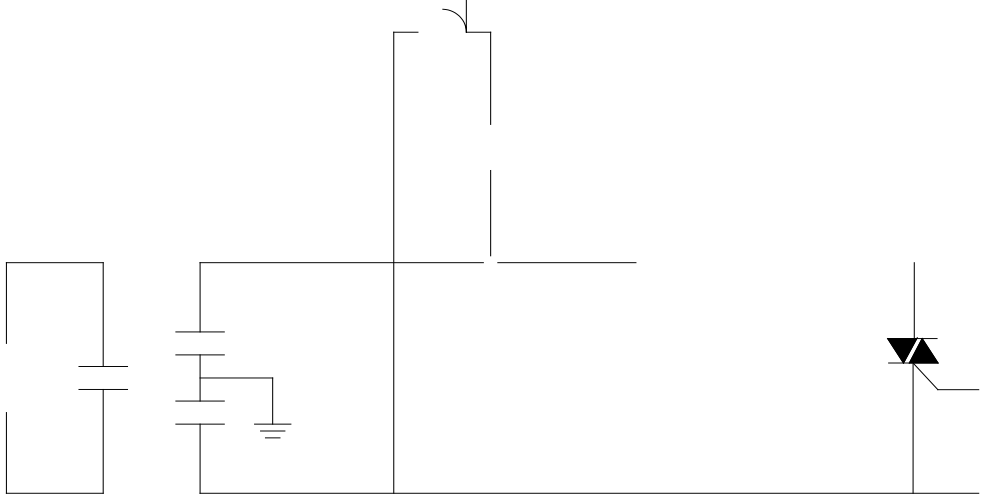


FIG.2: RMS on-state current versus case temperature

FIG.3: Surge peak on-state current versus

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



Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co.,