



JST138C-800D 12A TRIAC

Rev.A.1.1

DESCRIPTION:

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 RoHS compliant. $P_{tot} = 0.7W$ at $T_c = 25^\circ C$. [1NdiJ6 (pur)7 (p)10 (os)4 (e)]TJ 084 5

ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33$	- -	MAX.	5	mA
				10	
V_{GT}		ALL	MAX.	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k$	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 s
$(dV/dt)_c$	$(dI/dt)_c=5A/ms$, $T_j=110$		MIN.	2	
t_{on}	$I_G=20mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	3	s
t_{off}				30	

STATIC CHARACTERISTICS

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

THERMAL RESISTANCES

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

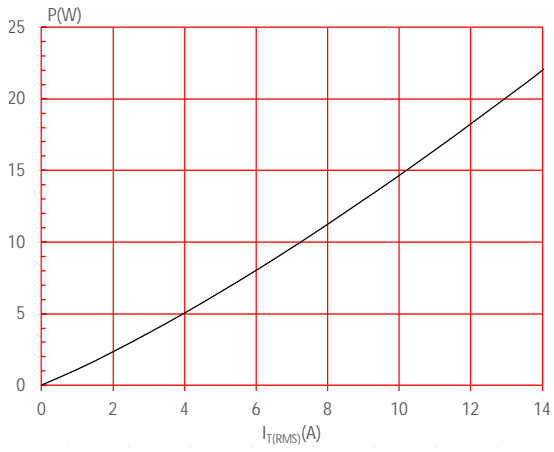
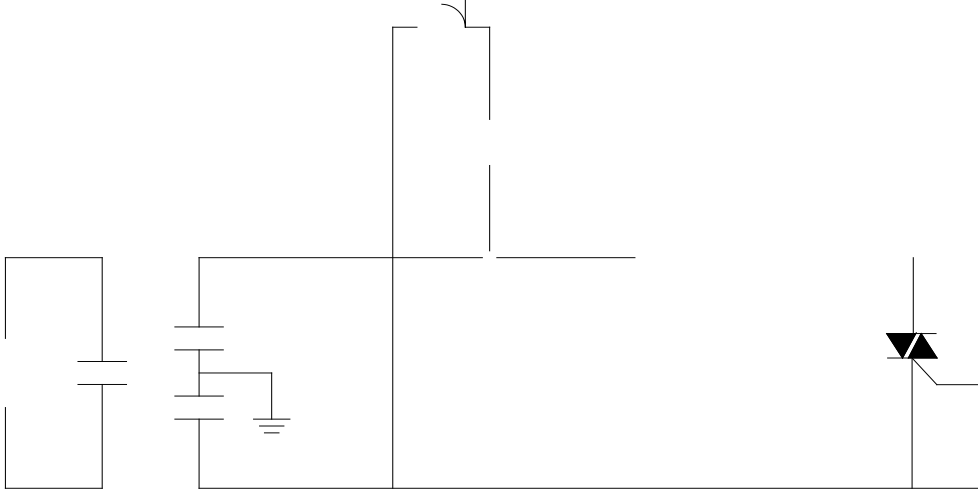


FIG.2: RMS on-state current versus case temperature

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,
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