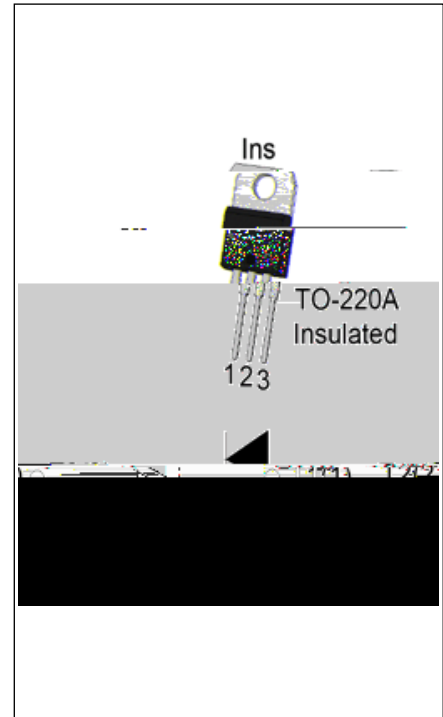


JST08A-800C 8A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST08A-800C 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. By using an internal ceramic pad, JST08A-800C provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.


MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	8	A
V_{DRM}/V_{RRM}	800	V
$I_{GT} / / /$	25/25/25/50	mA

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}	800	V
Repetitive peak reverse voltage (T _j =25)		V _{RRM}	800	V
RMS on-state current (T _c ≤ 97)		I _{T(RMS)}	8	A
Non repetitive surge peak on-state current (full cycle , t _p =20ms , T _j =25)		I _{TSM}	80	A
Non repetitive surge peak on-state current (full cycle , t _p =16.6ms , T _j =25)			88	
I ² t value for fusing (t _p =10ms , T _j =25)		I ² t	32	A ² s
Critical rate of rise of on-state current (I _G =2 I _{GT} , f=100Hz , T _j =125)	-	di/dt	80	A/μs
	-		40	
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}	1	kV
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ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33\Omega$	- -	MAX.	25	mA
				50	
V_{GT}		ALL	MAX.	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k\Omega$	ALL	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	- -	MAX.	40	mA
				80	
I_H	$I_T=200mA$		MAX.	30	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	500	V/ μs
$(dV/dt)_c$	$(dI/dt)_c=3.5A/ms$, $T_j=125$		MIN.	6	V/ μs
t_{on}	$I_G=80mA$ $I_A=400mA$ $I_R=40mA$ $T_j=25$		TYP.	5	μs
t_{off}				30	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=11A$ $t_p=380\mu s$	$T_j=25$	1.5	V
V_{TO}	Threshold voltage	$T_j=125$	0.81	V
R_D	Dynamic resistance	$T_j=125$	44	m Ω
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	μA
I_{RRM}		$T_j=125$	0.35	mA

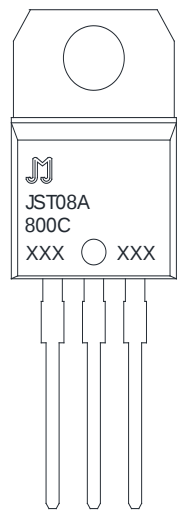
THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	2.5	/W

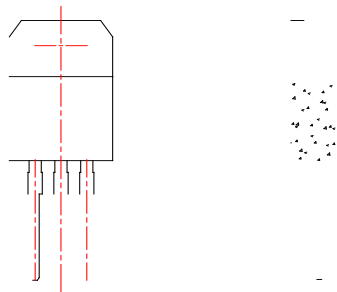
ORDERING INFORMATION

J	ST	08	A	-800	C
JieJie Microelectronics Co., Ltd.	Trians	$I_{T(RMS)}:8A$	$A:TO-220A(Ins)$	$800:V_{DRM}/V_{RRM} \geq 800V$	$C:I_{GT1-3} \leq 25mA \ I_{GT4} \leq 50mA$

MARKING



PACKAGE MECHANICAL DATA



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