JST30C-1200CW 30A TRIAC

Rev.A.1.1

The JST30C-1200CW 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. JST30C-1200CW snubberless triac is especially recommended for use on inductive loads. From T2 terminals to external heatsink. Package TO-220C is RoHS compliant.

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}	1200	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	1200	V
RMS on-state current ($T_C \leq$ 100)	$I_{T(RMS)}$	30	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	300	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		330	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	450	A^2s
Critical rate of rise of on			

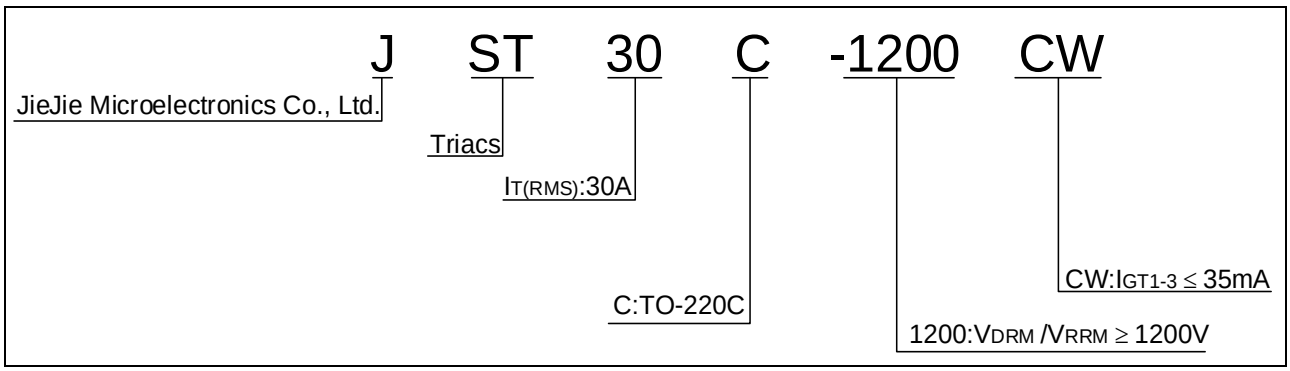
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	2.5	kV

(T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33q	- -	MAX.	35	mA
V_{GT}		- -	MAX.	1.3	V
V_{GD}	V_D =V_{DRM} T_j =125 R_L =3.3kq	- -	MIN.	0.15	V
I_L	I_G =1.2I_{GT}	-	MAX.	70	mA
				80	
I_H	I_T =500mA		MAX.	60	mA
dV/dt	V_D=800V Gate Open T_j =125		MIN.	1000	V/εs
(dI/dt)c	(dV/dt)c=20V/εs T_j=125		MIN.	15	A/ms
t_{on}	I_G=40mA I_A=200mA I_R=20mA T_j=25		TYP.	7	εs
t_{off}				50	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM} =42A t_p=380εs	T_j=25	1.5	V
V_{TO}	Threshold voltage	T_j=125	0.73	V
R_D	Dynamic resistance	T_j=125	25	mq
I_{DRM}	V_D =V_{DRM} V_R =V_{RRM}	T_j=25	10	εA
I_{RRM}		T_j=125	4	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	0.6	/W
$R_{th(j-a)}$	junction to ambient (AC)	60	/W


J
ST
30
C
-1200
CW
JieJie Microelectronics Co., Ltd.
Triacs
IT(RMS):30A
C:TO-220C
CW:IGT1-3 ≤ 35mA
1200:VDRM /VRRM ≥ 1200V

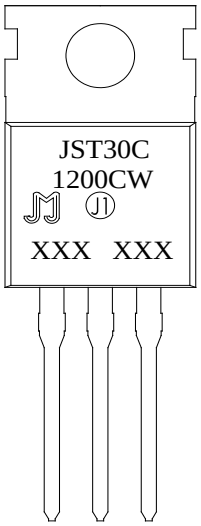

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FIG.1: Maximum power dissipation versus RMS on-state current

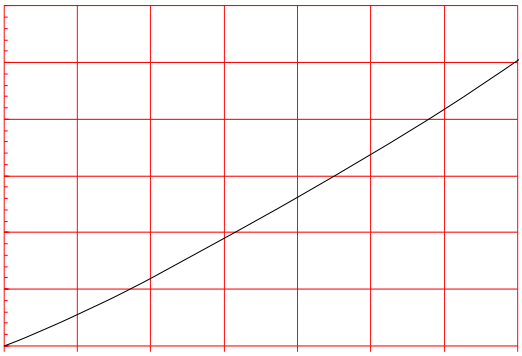
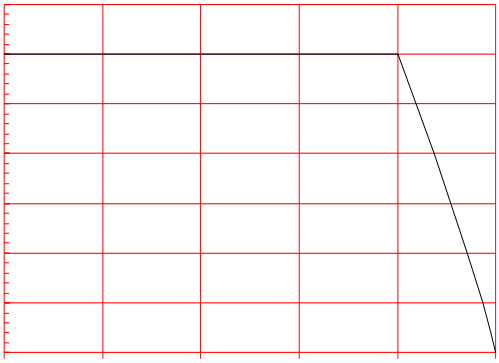


FIG.2: RMS on-state current versus case temperature



Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
JST30C-1200CW	1200	35	TO-220C	50	Tube

JST30C-1200CW

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