



## JST30E-1200CW 30A TRIAC

Rev.A.1.1

### DESCRIPTION:

The JST30E-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. JST30E-1200CW snubberless triac is especially recommended for use on inductive loads. Package TO-263 is RoHS compliant.

### MAIN FEATURES

### 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 ( $T_j$ )

Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG.8)	$V_{pp}$	2.5	kV
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**ELECTRICAL CHARACTERISTICS** ( $T_j=25$  unless otherwise specified)

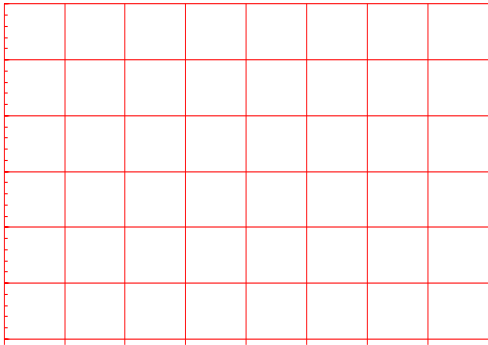
Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D=12V R_L=33$	- -	MAX.	35	mA
$V_{GT}$		- -	MAX.	1.3	V
$V_{GD}$	$V_D=V_{DRM} T_j=125$ $R_L=3.3k$	- -	MIN.	0.15	V
$I_L$	$I_G=1.2I_{GT}$	-	MAX.	70	mA
				80	
$I_H$	$I_T=500mA$		MAX.	60	mA
$dV/dt$	$V_D=800V$ Gate Open $T_j=125$		MIN.	1000	V/ $\mu s$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

**STATIC CHARACTERISTICS**

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=42A t_p=380\mu s$	$T_j=25$	1.5	V
$V_{TO}$	Threshold voltage	$T_j=125$	0.73	V
$R_D$	Dynamic resistance	$T_j=125$	25	m
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	10	



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



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

**FIG.7:** Relative variations of gate trigger current, holding current and latching current versus junction temperature





ORDERING INFORMATION

Order code	Voltage V <sub>DRM</sub> /V <sub>R<sub>RRM</sub></sub> (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		H- I- J			

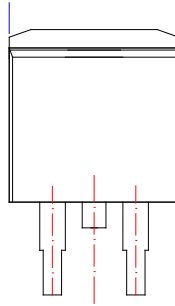
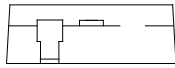
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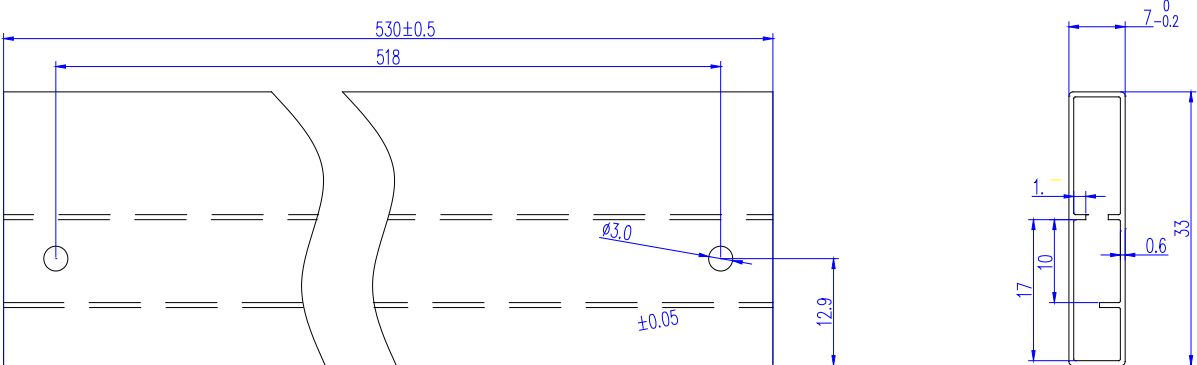
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PACKAGE MECHANICAL DATA




Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	9.40		9.60	0.370		0.378
D	2.40			0.094		
E	1.20		1.50	0.047		0.059
F	0.75		0.85	0.029		0.033

DELIVERY MODE



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