

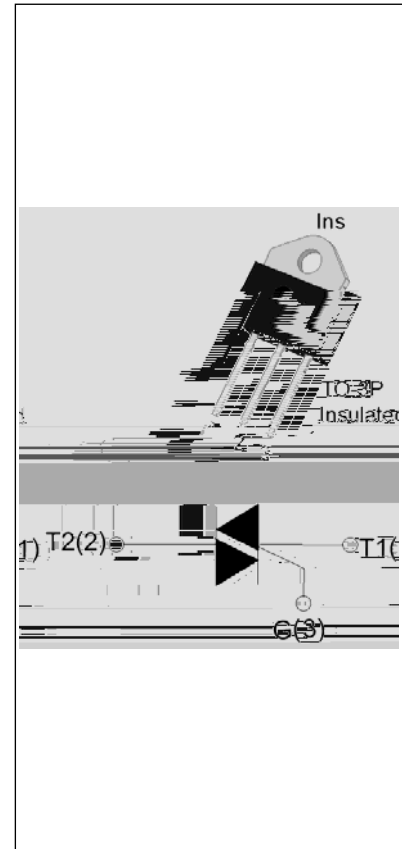


JST30Z-800BW 30A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST30Z-800BW 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. JST30Z-800BW snubberless triac is especially recommended for use on inductive loads. By using an internal ceramic pad, JST30Z-800BW provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906). Package TO-3P is RoHS compliant.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	30	A
V_{DRM}/V_{RRM}	800	V
$I_{GT} / /$	50/50/50	mA

ABSOLUTE MAXIMUM RATINGS

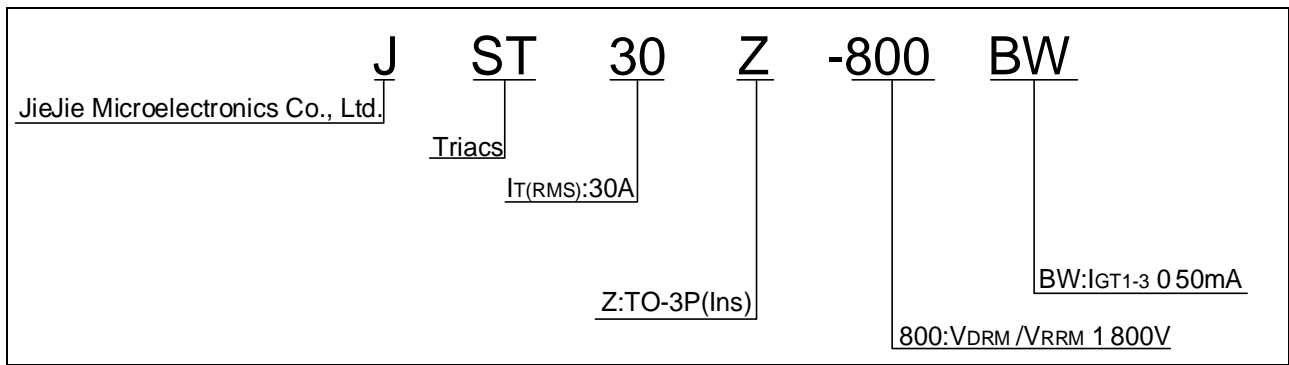
Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-125	
Repetitive peak off-state voltage ($T_j=25^\circ C$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^\circ C$)	V_{RRM}	800	V
RMS on-state current ($T_C 079^\circ C$)	$I_{T(RMS)}$	30	A
Non repetitive surge peak on-state current (full cycle, $t_p=20ms$, $T_j=25^\circ C$)	I_{TSM}	300	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6ms$, $T_j=25^\circ C$)		330	
I^2t value for fusing ($t_p=10ms$, $T_j=25^\circ C$)	I^2t	450	A^2s
Critical rate of rise of on-state current ($I_G=2 I_{GT}$, $f=100Hz$, $T_j=125^\circ C$)	di/dt	100	$A/\mu s$
Peak gate current ($t_p=20\mu s$, $T_j=125^\circ C$)	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}	2.5	kV

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

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V R_L=33$	- -	MAX.	50	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.	80	mA
				100	
I_H	$I_H=500mA$		MAX.	75	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	2000	V/ μ s

ORDERING INFORMATION



MARKING

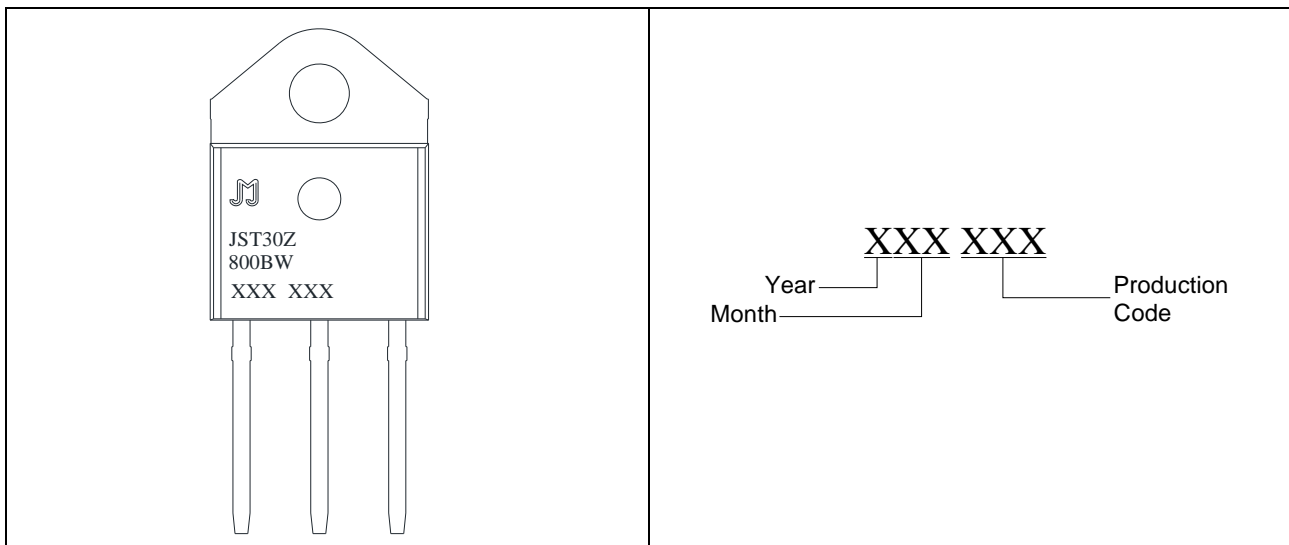


FIG.1: Maximum power dissipation versus RMS on-state current



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

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



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Information furnished in this document is believed to be accurate and reliable. However,
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