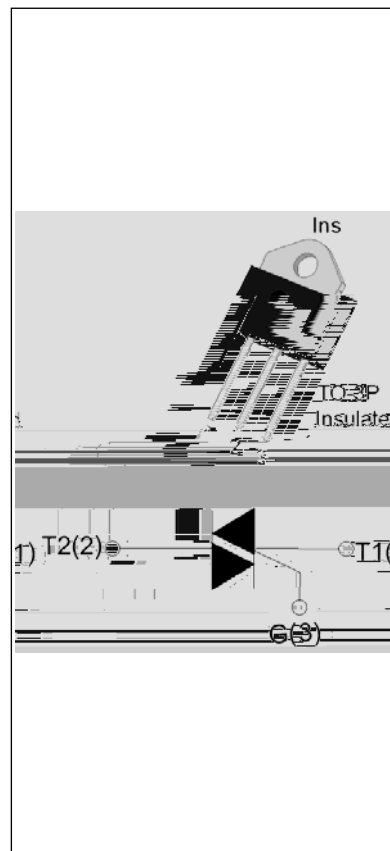


**JST30Z-800BW 30A TRIAC**

Rev.A.1.1

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.



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

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 ($T_j=25^\circ\text{C}$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	800	V
RMS on-state current ($T_C 079^\circ\text{C}$)	$I_{T(RMS)}$	30	A
Non repetitive surge peak on-state current (full cycle , $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	300	A
Non repetitive surge peak on-state current (full cycle , $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		330	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	450	A^2s
Critical rate of rise of on-state current ($I_G=2\text{hI}_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$)	di/dt	100	$\text{A}/\mu\text{s}$
Peak gate current ($t_p=20\mu\text{s}$, $T_j=125^\circ\text{C}$)	I_{GM}	4	A



Average gate power dissipation ($T_j=125\text{ }^{\circ}\text{C}$)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage ($T_j=25\text{ }^{\circ}\text{C}$; non-repetitive,off-state;FIG.7)	V_{pp}	2.5	kV

($T_j=25\text{ }^{\circ}\text{C}$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V\ R_L=33\Omega$	- -	MAX.	50	mA
V_{GT}		- -	MAX.	1.3	V
V_{GD}	$V_D=V_{DRM}\ T_j=125\text{ }^{\circ}\text{C}$ $R_L=3.3k\Omega$	- -	MIN.	0.15	V
I_L	$I_G=1.2I_{GT}$	-	MAX.	80	mA
				100	
I_H	$I_T=500mA$		MAX.	75	mA

0 dV/dt $V_D=50V$ Gate Open $T_j=125\text{ }^{\circ}\text{C}$ MIN. “ T \ # Ů2 1

	<u>J</u>	<u>ST</u>	<u>30</u>	<u>Z</u>	<u>-800</u>	<u>BW</u>
JieJie Microelectronics Co., Ltd.		Triacs				
		<u>IT(RMS):30A</u>				
			<u>Z:TO-3P(Ins)</u>			
						<u>BW:IGT1-3 0 50mA</u>
					<u>800:VDRM /VRRM 1 800V</u>	

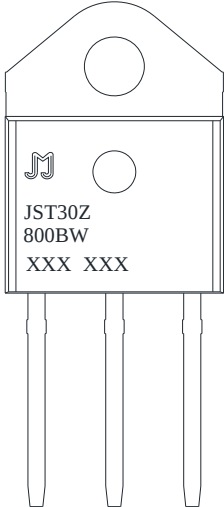
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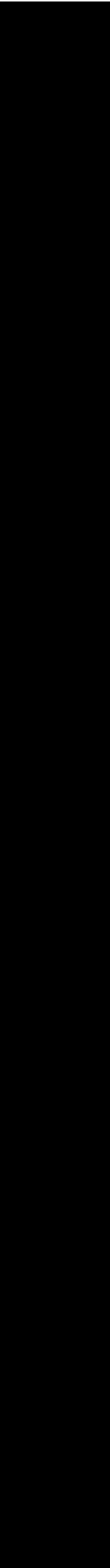
FIG.1: Maximum power dissipation versus RMS on-state current



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

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







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