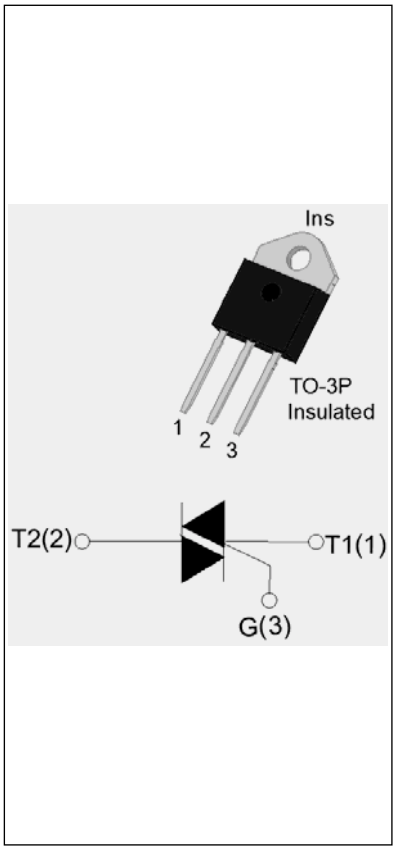
DESCRIPTION:

The JST41Z-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. JST41Z-800BW snubberless triac is especially recommended for use on inductive loads. By using an internal ceramic pad, JST41Z-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
$I_{T(RMS)}$	40	A
V_{DRM} /V_{RRM}	800	V
I_{GT} / /	50/50/50	mA

ABSOLUTE MAXIMUM RATINGS

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 81)	$I_{T(RMS)}$	40	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	420	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		462	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	1000	A^2s
Critical rate of rise of on-state current (I_G=2 I_{GT} , f=100Hz , T_j=125)	dI/dt	100	A/μs
Peak gate current (t_p=20μs , T_j=125)	I_{GM}	8	A

Average gate power dissipation (T_j=125)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	40	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	1.5	kV

ELECTRICAL CHARACTERISTICS(T_j=25 unless otherwise specified)

I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	50	mA
V_{GT}		- -	MAX.	1.3	V
V_{GD}	V_D =V_{DRM} T_j=125 R_L =3.3KΩ	- -	MIN.	0.2	V
I_L	I_G=1.2I_{GT}	-	MAX.	80	mA
				200	
I_H	I_T =500mA		MAX.	100	mA
dV/dt	V_D=540V Gate Open T_j=125		MIN.	2000	V/μs
(dI/dt)c	(dV/dt)c=20V/μs T_j=125		MIN.	25	A/ms
t_{on}	I_G=80mA I_A=400mA I_R=40mA T_j=25		TYP.	10	μs
t_{off}				70	

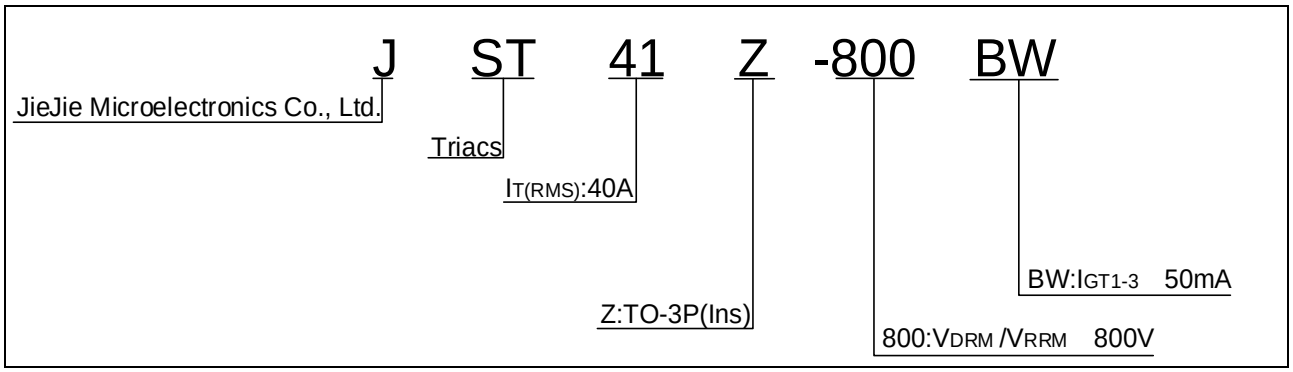
STATIC CHARACTERISTICS

V_{TM}	I_{TM} =60A t_p=380μs	T_j=25	1.4	V
V_{TO}	Threshold voltage	T_j=125	0.73	V
R_D	Dynamic resistance	T_j=125	10	mΩ
I_{DRM}	V_D=$V_{DRM}$$V_R$ =V_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=125	5	mA

THERMAL RESISTANCES

$R_{th(j-c)}$	junction to case (AC)	0.85	/W
$R_{th(j-a)}$	junction to ambient (AC)	50	/W

ORDERING INFORMATION



MARKING

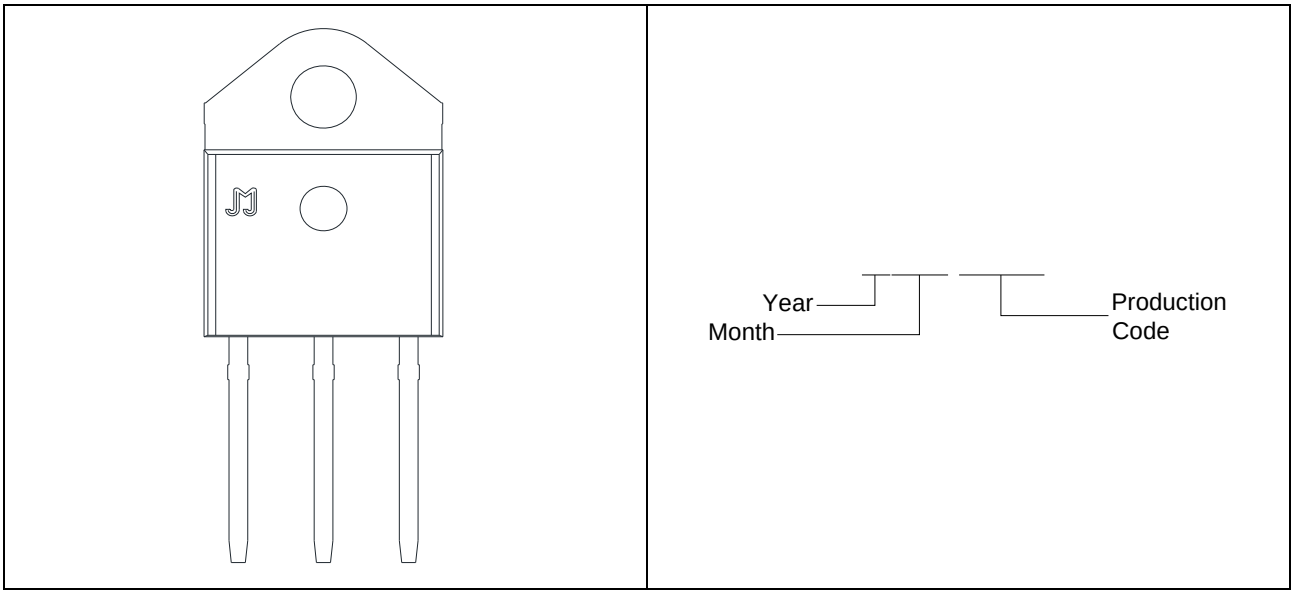
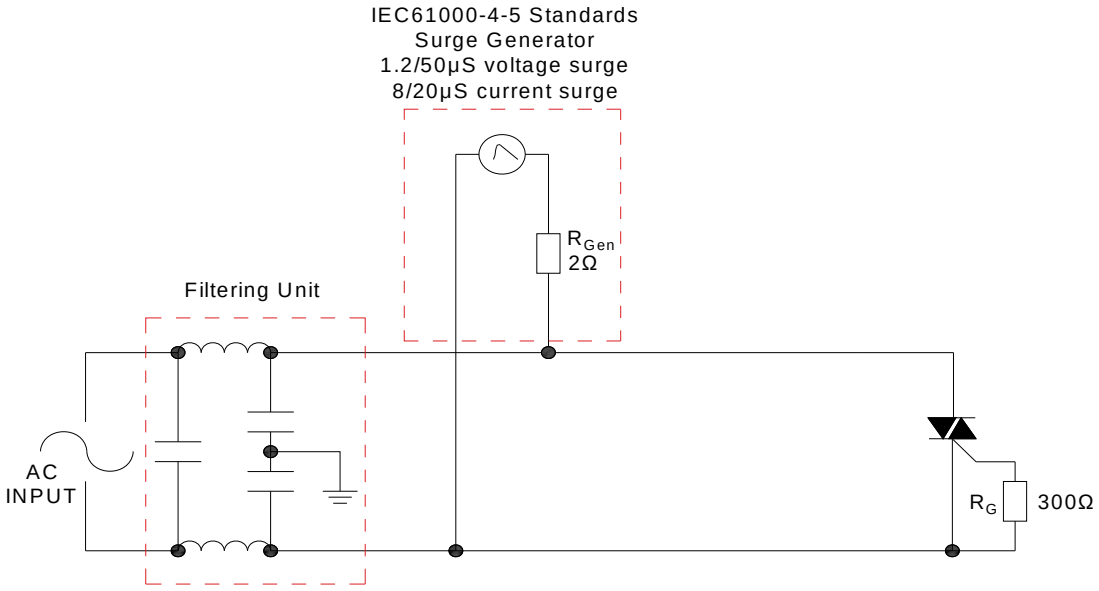


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



SHAPING AND SOLDERING PARAMETERS

Refer to Instructions for installation of plastic-sealed in-line power devices released by JieJie

PACKAGE MECHANICAL DATA