



JST41Z-1600BW 40A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST41Z-1600BW 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-1600BW snubberless triac is especially recommended for use on inductive loads. By using an internal ceramic pad, JST41Z-1600BW provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906).

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}	1.2	kV

ELECTRICAL CHARACTERISTICS($T_j=25$ 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}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k\Omega$	- -	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	$V_D=1070V$ Gate Open $T_j=125$		MIN.	1500	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

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=60A$ $t_p=380\mu s$	$T_j=25$	1.8	V
V_{TO}	Threshold voltage	$T_j=125$	0.78	V
R_D	Dynamic resistance	$T_j=125$	27	$m\Omega$
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	20	μA
I_{RRM}		$T_j=125$	10	mA

THERMAL RESISTANCES

ORDERING INFORMATION

J	ST	41	Z	-1600	BW
JieJie Microelectronics Co., Ltd.	Triacs	$I_{T(RMS)}:40A$	Z:TO-3P(Ins)	1600: $V_{DRM}/V_{RRM} 1\ 1600V$	BW:IGT1-3 0.50mA

MARKING

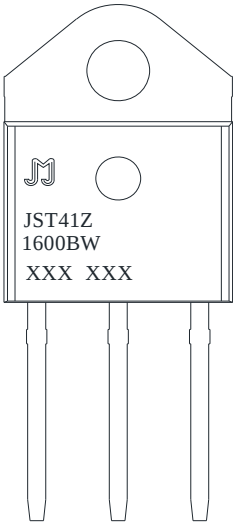
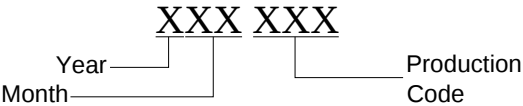
	
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FIG.1: Maximum power dissipation versus RMS on-state current

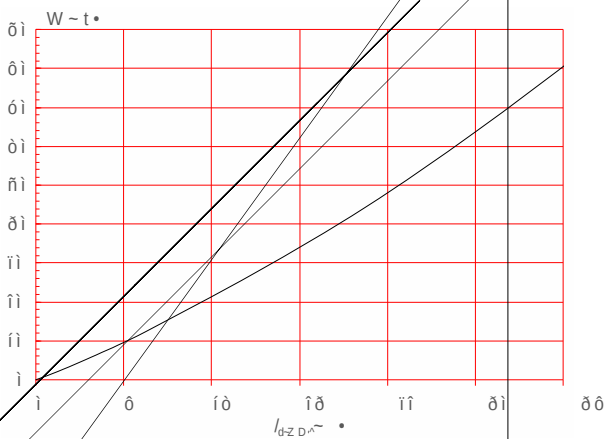


FIG.3: Surge peak on-state current versus number of cycles

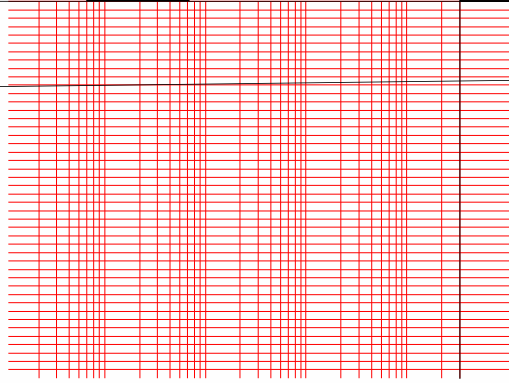


FIG.2: RMS on-state current versus case temperature

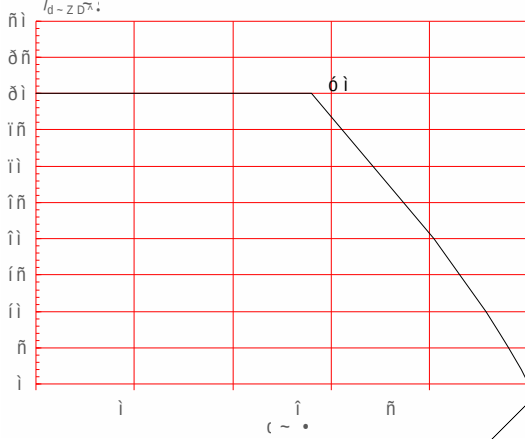
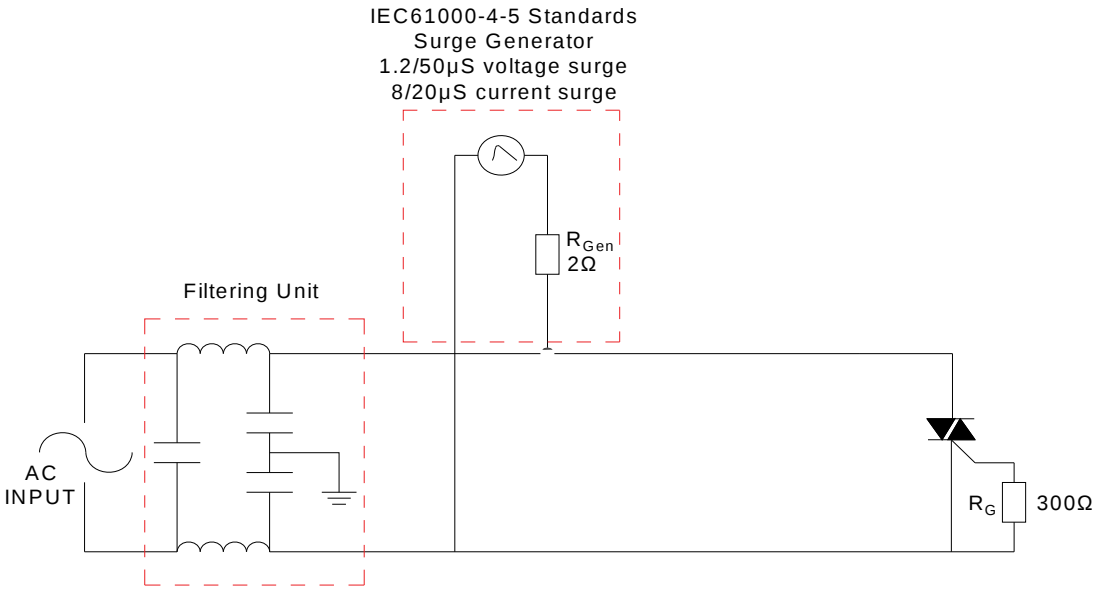


FIG.4: On-state characteristics

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



T(mA)	Package	Base qty. (pcs)	Delivery mode
- 0 €0 0 8iVFr—@H#Nò@x)t ,4i1 B—D 4#Nôtf)t ,4iS,,B—@H#Nölb—@			

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