



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)

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
$(dI/dt)_c$	$(dV/dt)_c=20V/\mu s$ $T_j=125$		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}	$I_{TM}=60A$ $t_p=380\mu s$	$T_j=25$	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

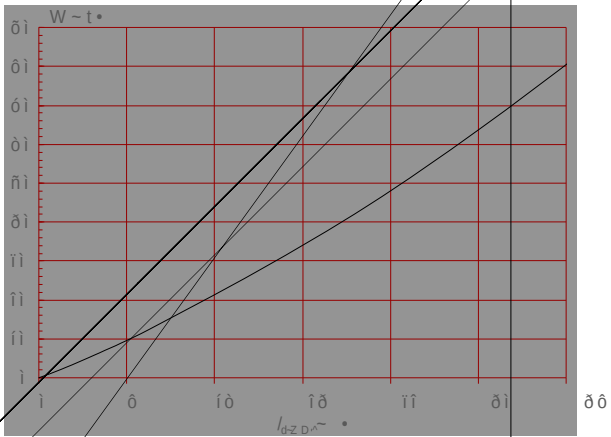
<u>J</u>	<u>ST</u>	<u>41</u>	<u>Z</u>	<u>-1600</u>	<u>BW</u>
JieJie Microelectronics Co., Ltd.	Triacs	$I_{T(RMS)}:40A$	Z:TO-3P(Ins)	1600: $V_{DRM}/V_{RRM} 1\ 1600V$	BW:IGT1-3 0.50mA

MARKING

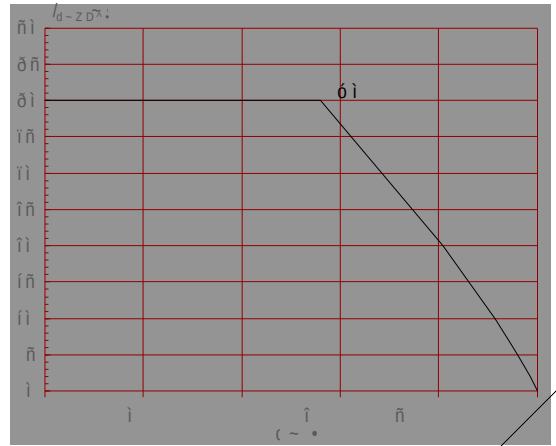
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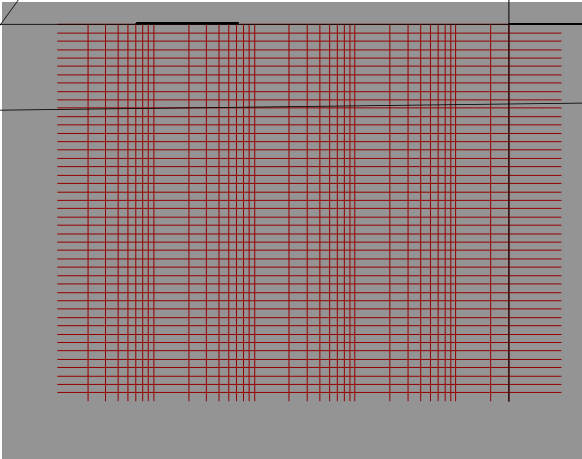
Maximum power dissipation versus RMS on-state current



RMS on-state current versus case temperature



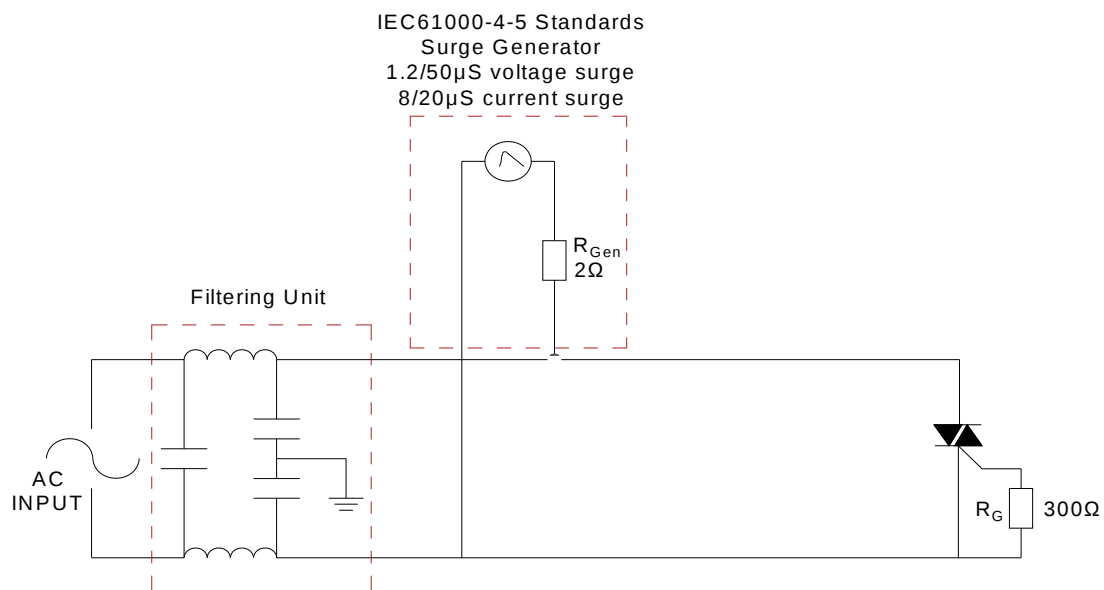
Surge peak on-state current versus number of cycles



On-state characteristics



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





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