

DESCRIPTION:

The JST04W-600SW 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. JST04W-600SW snubberless triac is especially recommended for use on inductive loads. It can be driven directly through the MCU I/O port. Package SOT-223-2L is RoHS compliant.

MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	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}	600 V
	Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	600 V
	RMS on-state current ($T_c=102^\circ\text{C}$)	$I_{T(RMS)}$	1 A
	Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	25
	Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		27.5
	I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	3.1 A^2s
	Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$)	di/dt	100 A/s
	Peak gate current ($t_p=20\text{ }\mu\text{s}$, $T_j=125^\circ\text{C}$)	I_{GM}	2 A
	Average gate power dissipation ($T_j=125^\circ\text{C}$)	$P_{G(AV)}$	0.1 W



Peak pulse voltage ($T_j=25^\circ\text{C}$; non-repetitive, off-state; FIG.8)	V_{pp}	3	kV
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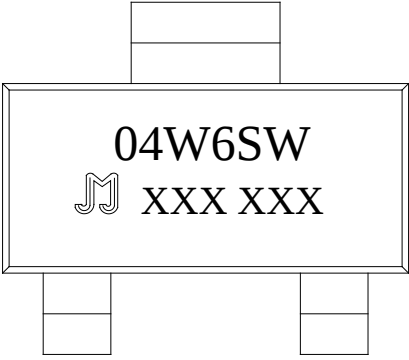
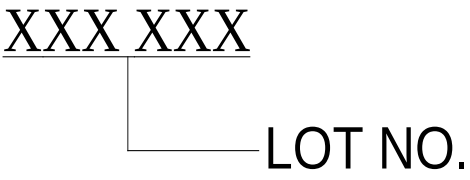
ELECTRICAL CHARACTERISTICS (unless otherwise specified)

I_D	V_D	I_G	V_G	I_{GT}
I_{GT}	$V_D=12\text{V}$ $R_L=33$	- -	MAX.	10
V_{GT}		- -	MAX.	1 1

ORDERING INFORMATION

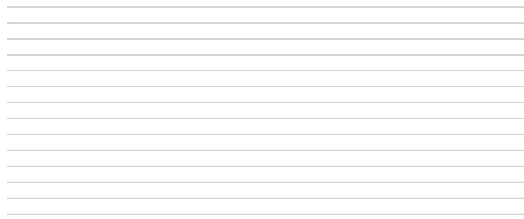
<u>J</u>	<u>ST</u>	<u>04</u>	<u>W</u>	<u>-600</u>	<u>SW</u>
JieJie Microelectronics Co., Ltd.	Triacs				
	<u>IT(RMS):1A</u>				
		<u>W:SOT-223-2L</u>			
					<u>SW:IGT1-3 10mA</u>
				<u>600:VDRM /VRRM</u>	<u>600V</u>

MARKING

	
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⑤ : Maximum power dissipation versus RMS on-state current



⑤ RMS on-state current versus case temperature

Relative variations of gate trigger current, holding current and latching current versus junction temperature

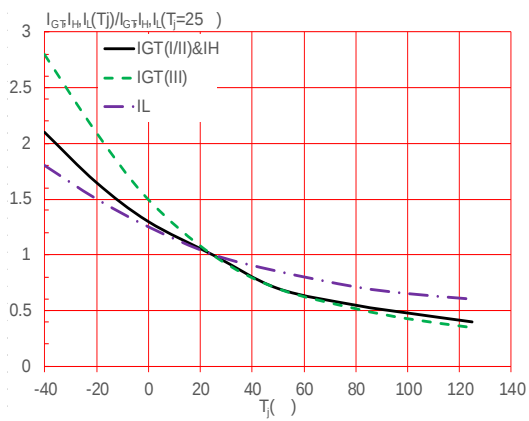


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-



ORDERING INFORMATION

① V V V	② ()	③	
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DELIVERY MODE

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W						
E D0()Tj7.895 80 ie P2()Tj 5.002 Tc -5Tc 0 Tc5-2.895 -2.						

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