JST04W-600SW 1A TRIAC

Rev.A.1.2

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

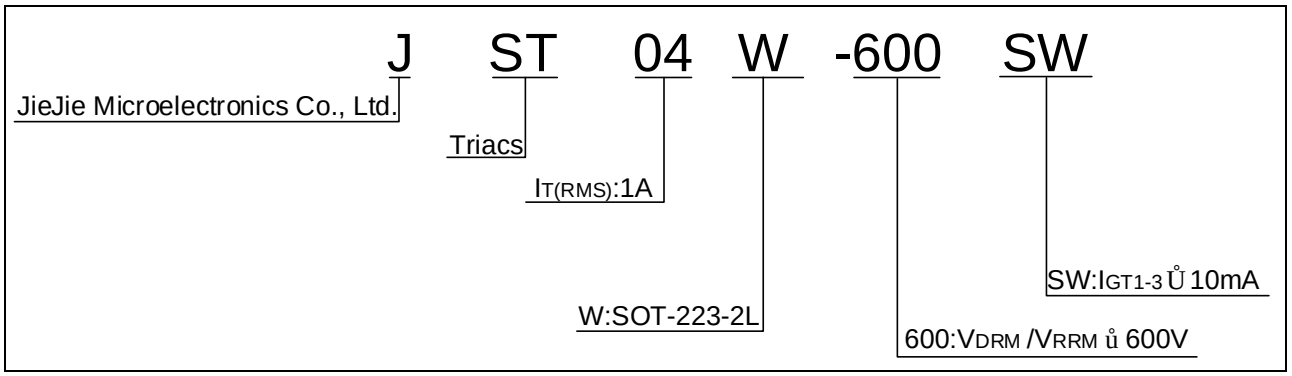
Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	Ņ
Operating junction temperature range	T_j	-40-125	Ņ
Repetitive peak off-state voltage (T_j=25Ņ)	V_{DRM}	600	V
Repetitive peak reverse voltage (T_j=25Ņ)	V_{RRM}	600	V
RMS on-state current (T_C Ů 102Ņ)	$I_{T(RMS)}$	1	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25Ņ)	I_{TSM}	25	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25Ņ)		27.5	
I^2t value for fusing (t_p=10ms , T_j=25Ņ)	I^2t	3.1	A^2s
Critical rate of rise of on-state current (I_G=2 I_{GT} , f=100Hz , T_j=125Ņ)	dI/dt	100	A/μs
Peak gate current (t_p=20μs , T_j=125Ņ)	I_{GM}	2	A
Average gate power dissipation (T_j=125Ņ)	$P_{G(AV)}$	0.1	W

Peak pulse voltage (T_j=25Ņ; non-repetitive,off-state;FIG.8)	V_{pp}	3	kV

ELECTRICAL CHARACTERISTICS (T_j=25Ņ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	Ň - ň - ʾn	MAX.	10	mA
V_{GT}		Ň - ň - ʾn	MAX.	1 1	

ORDERING INFORMATION



MARKING

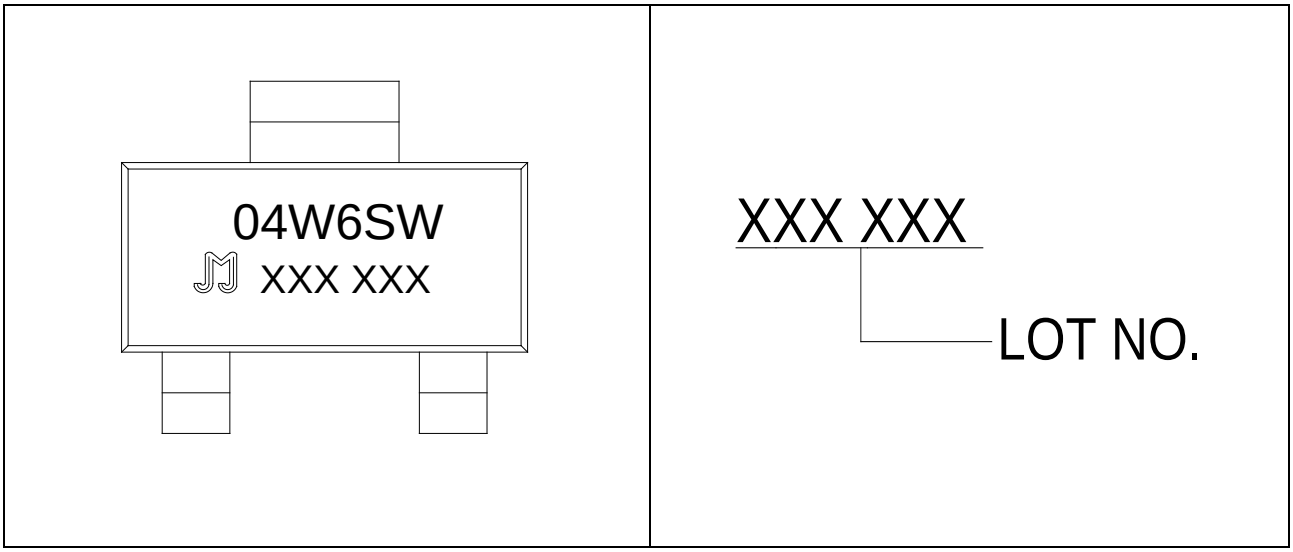


FIG.1: Maximum power dissipation versus RMS on-state current

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

FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

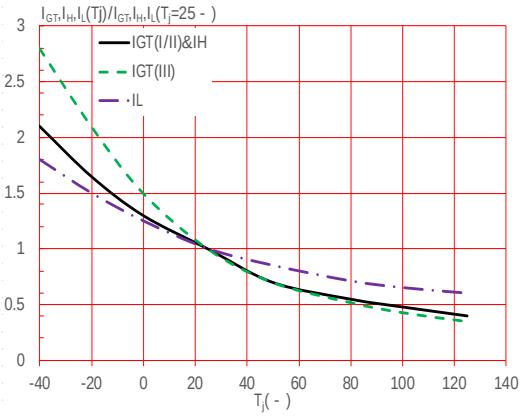


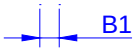
FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-R61EMC547N99552.8262.9

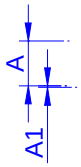
ORDERING INFORMATION

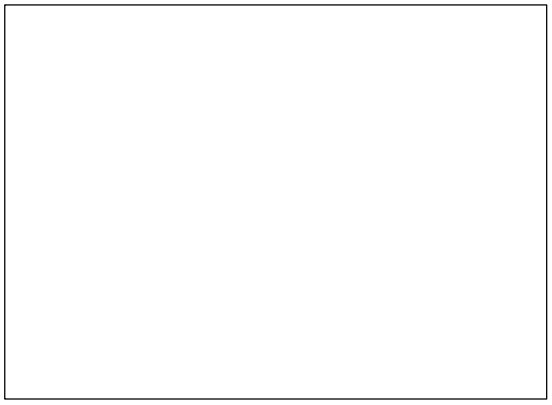
Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	

PACKAGE MECHANICAL DATA









DELIVERY MODE

Dimensions						
Ref.	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 -:						

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