JST02W-1000SW 2A TRIAC

Rev.A.1.1

The JST02W-1000SW 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. JST02W-1000SW 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.

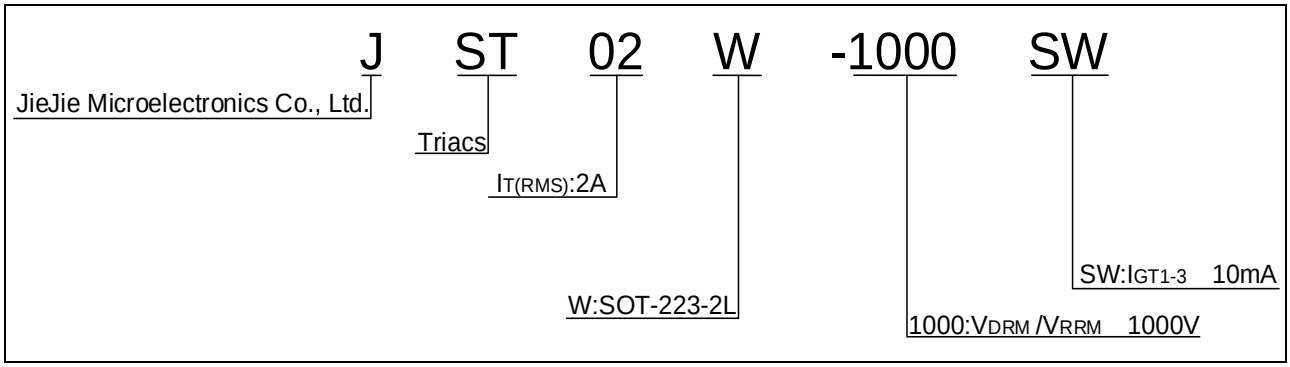
Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-125	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	1000	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	1000	V
RMS on-state current (T_C			

Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.8)	V_{pp}	4	kV

(T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	10	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	V_D =V_{DRM} T_j =125 R_L =3.3kΩ	- -	MIN.	0.2	V
I_G =1.2I_{GT}		-	MAX.	20	mA
				30	

I_T j -0.017 Tc 0.01C2_1 1 2 Tm (T j.764 Tm (I)Tj2 (3.1 (1EMC 1 Tc 0.001 Tw 12.705.48 r30)Tj00 Tc 0Tc -0.002 Tw 6.95 j 0 Tc 0 Tw


J
ST
02
W
-1000
SW
JieJie Microelectronics Co., Ltd.
Triacs
IT(RMS):2A
W:SOT-223-2L
1000:VDRM /VRRM 1000V
SW:IGT1-3 10mA

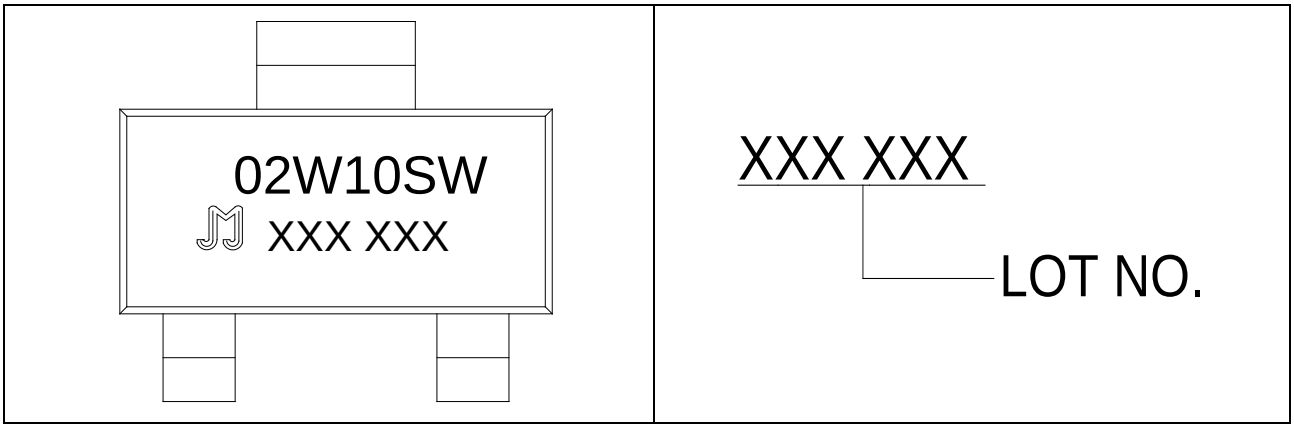
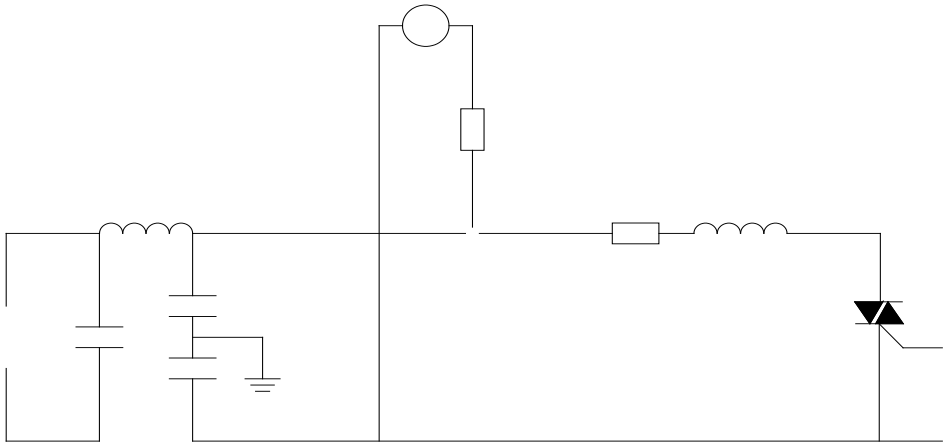
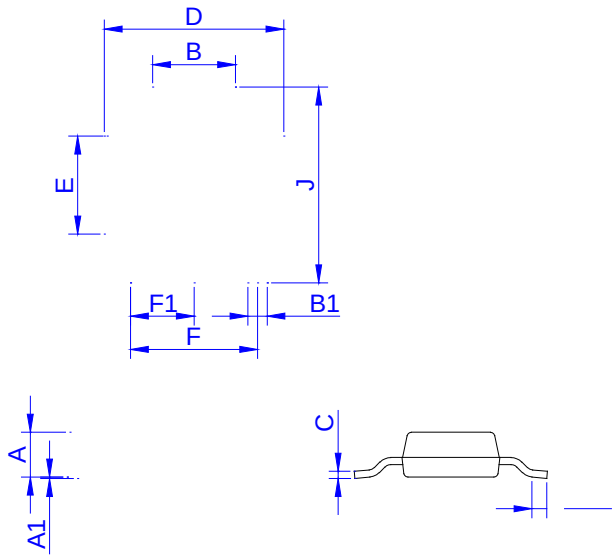

02W10SW
XXX XXX
XXX XXX
LOT NO.

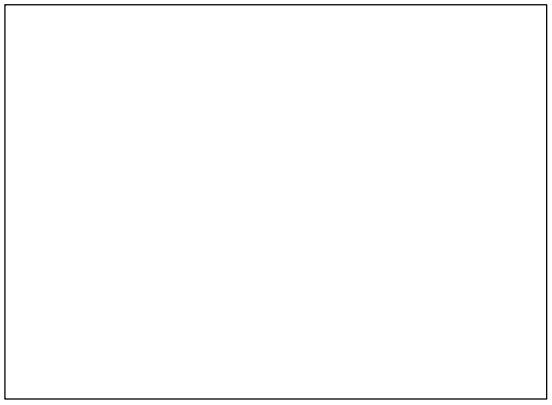
FIG.1: Maximum power dissipation versus RMS on-state current

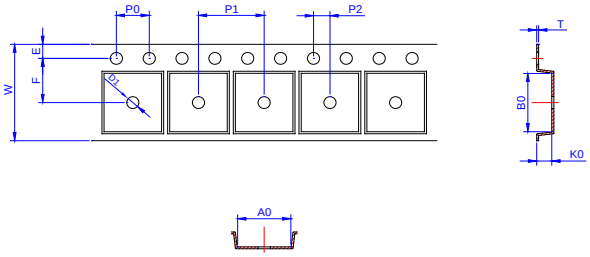
FIG.2: RMS on-state current versus case temperature

FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards




D
B
E
J
F1
B1
F
A
A1
C





Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W	-		12.30	-		0.482
E	1.65	1.75	1.85	0.065	0.069	0.073
F	5.45	5.50	5.55	0.215	0.217	0.219
D0		1.55	1.60		0.061	0.063
D1		-	-			
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	7.90	8.00	8.10	0.311	0.315	0.319
P2	1.95	2.00	2.05	0.077	0.079	0.081
10P0	39.80	40.00	40.20	1.567	1.575	1.583
A0	6.85	6.95	7.05	0.269	0.273	0.276
B0	7.15	7.25	7.35	0.280	0.284	0.288
K0	1.95	2.05	2.15	0.076	0.080	0.084
T	0.20	0.25	0.30	0.008	0.010	0.012