



JST131V-800T 1A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST131V-800T is a 1A TRIAC with a maximum
 AC current of 1A and a maximum ON/OFF time of
 100µs. It is a SOT-23 package.
 SOT-23 package.

MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

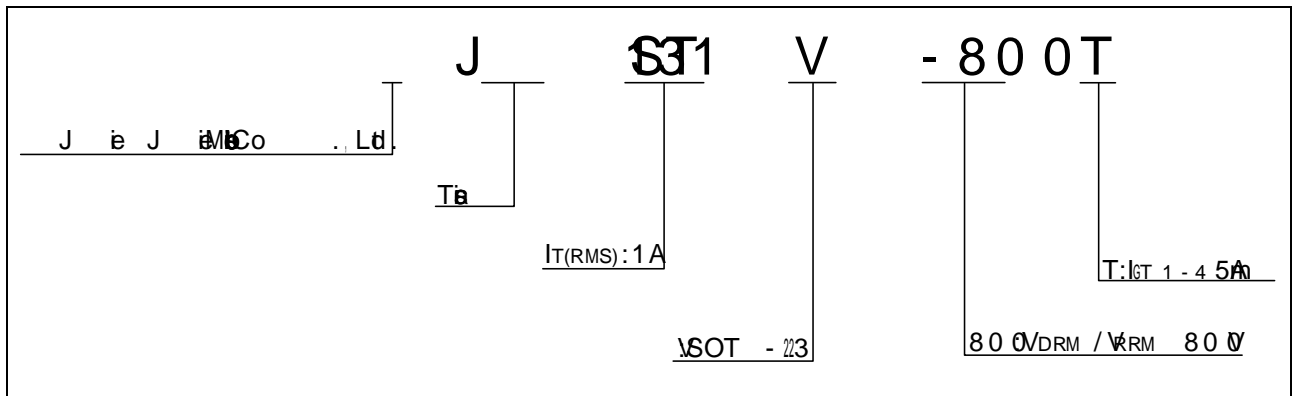
Parameter	Symbol	Value	Unit
Storage Temperature	T_s	-40 ~ 150	
Operating Temperature	T_j	-40 ~ 125	
Reverse Standoff Voltage ($T_j = 25^\circ\text{C}$)	V_{DRM}	800	V
Reverse Repetitive Voltage ($T_j = 25^\circ\text{C}$)	V_{RRM}	800	V
RMS On-State Current ($T_c = 98^\circ\text{C}$)	$I_{T(RMS)}$	1	A
Non-repetitive Surge Current ($t_p = 20\text{ms}$, $T_j = 25^\circ\text{C}$)	I_{TSM}	16.5	A
Non-repetitive Surge Current ($t_p = 16.6\text{ms}$, $T_j = 25^\circ\text{C}$)		18	
Surge Energy ($t_p = 10\text{ms}$, $T_j = 25^\circ\text{C}$)	$I^2 t$	1.36	A^2s
Clamping Voltage ($I_G = 2\text{mA}$, $f = 100\text{Hz}$, $T_j = 125^\circ\text{C}$)	d/d	30	$\text{A}/\mu\text{s}$
		20	
Peak Gate Current ($t_p = 20\mu\text{s}$, $T_j = 125^\circ\text{C}$)	I_{GM}	2	A
Average Power Dissipation ($T_j = 125^\circ\text{C}$)	$P_{G(AV)}$	0.5	W
Peak Power Dissipation	P_{GM}	5	W

ELECTRICAL CHARACTERISTICS

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D = 12V$ $R_L = 33\Omega$	ALL	MAX .	5	μA
V_{GT}		ALL	MAX .	1.3	V
V_{GD}	$V_D = V_{DRM}$ $T_j = 125^\circ C$ $R_L = 3.3\Omega$	ALL	MIN .	0.2	V
I_L	$I_G = 1 \cdot I_{GT}$	- -	MAX .	5	μA
				10	
I_H	$I_T = 50 \mu A$		MAX .	5	μA
$\frac{dV}{dt}$	$V_D = 540V$ $V_{GS} = 0V$ $T_j = 110^\circ C$		MIN .	20	V/ μs

(d) $t_c = 5$

ORDERING INFORMATION



MARKING

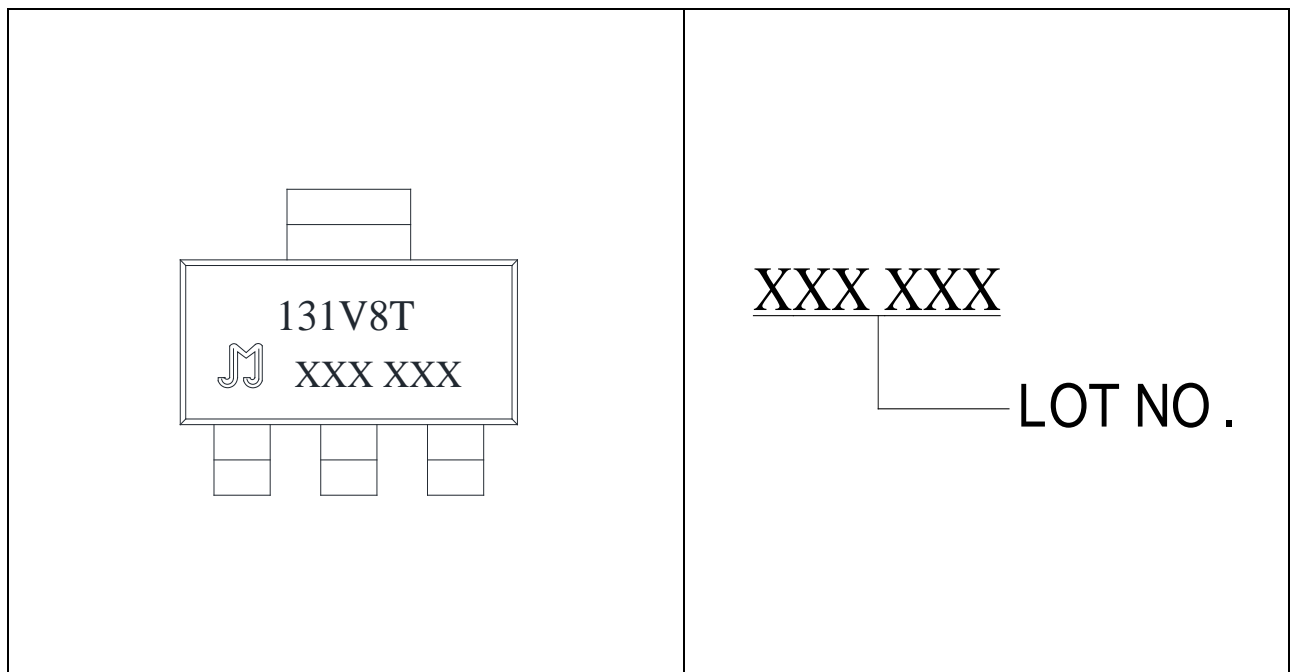


FIG.1: $M_{T(RMS)}$

ρ θ θ

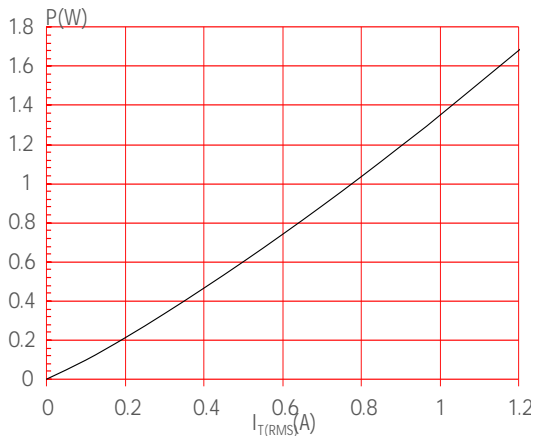


FIG.3: $M_{T(RMS)}$

ρ θ θ

thickness: 35 μ m)(full cycle)

FIG.2: $M_{T(RMS)}$

ρ

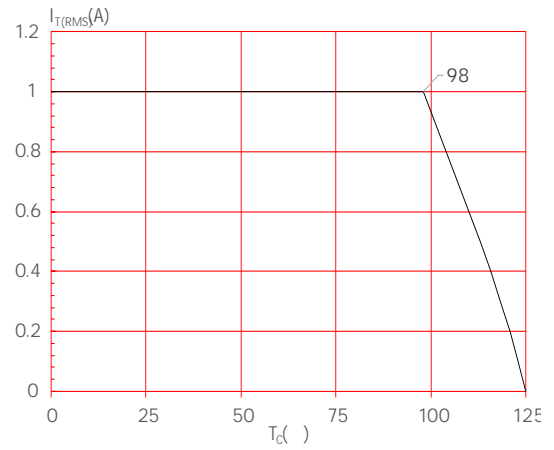


FIG.4: $M_{T(RMS)}$

ρ

FIG.7: R₁
G₁
j₁

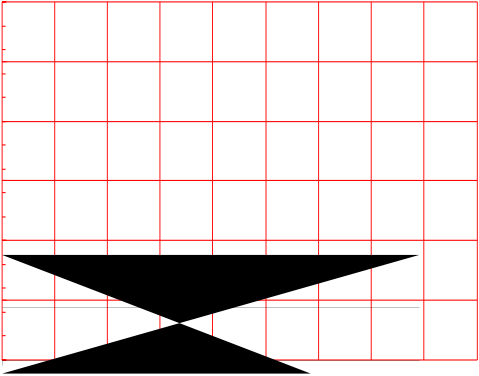


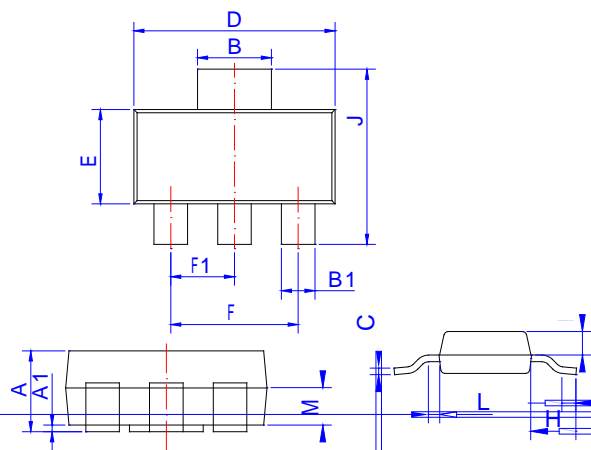
FIG. 8 ~~Test~~

~~dB~~EC

610005 ~~4~~ -

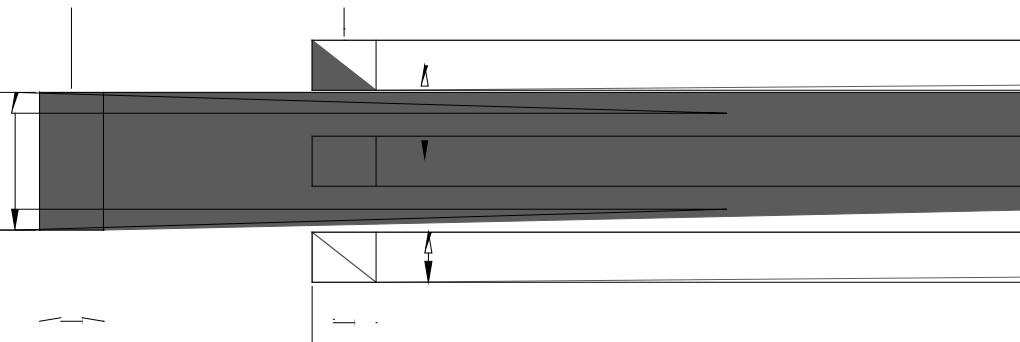


PACKAGE MECHANICAL DATA

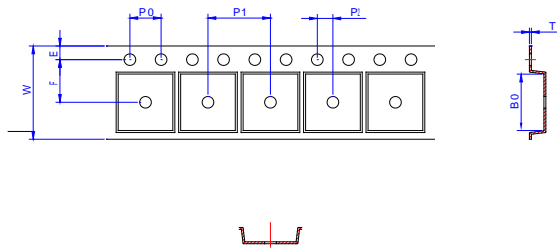


Ré	Dim					
	Min			Max		
	Min	Typ	Max	Min	Typ	Max
A	1.50	1.60	1.80	0.059	0.063	0.071
A1	0.01	0.06	0.10	0.0010	0.002	0.004
B	2.90	3.00	3.10	0.114	0.118	0.12
B1	0.60	0.70	0.80	0.024	0.028	0.031
C	0.2	0.26	0.32	0.0090	0.01	0.013
D	6.30	6.50	6.70	0.248	0.256	0.264
E	3.30	3.50	3.70	0.130	0.138	0.146
F	4.40		4.80	0.173		0.189
F1	2.20		2.40	0.087		0.094
G	0.50		1.00	0.020		0.039
H	1.50	1.75	2.00	0.059	0.069	0.079
J	6.70	7.00	7.30	0.264	0.276	0.287
	0.80		1.00	0.031		0.039
L	0.40		0.80	0.016		0.031
M	0.75		0.95	0.030		0.037

FOOTPRINTSOT-223(dimensions in mm)



DELIVERY MODE



Ré	Dim					
	Min			Max		
	Min	Typ	Max	Min	Typ	Max
W	-		12.30	-		0.482
E	1.65	1.75	1.85	0.065	0.069	0.070
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	0.080
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
Ø	1.95	2.05	2.15	0.076	0.080	0.080
T	0.20	0.25	0.30	0.008	0.010	0.010

