JSM131N2-800D 1A TRIAC

Rev.A.1.1

DESCRIPTION:

The JSM131N2-800D 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, m

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D=12V R_L=33Ω	- -	MAX.	5	mA
				10	
V_{GT}		ALL	MAX.	1.3	V
V_{GD}	V_D=V_{DRM} T_j=125 R_L=3.3kΩ	ALL	MIN.	0.2	V
I_L	I_G=1.2I_{GT}	- -	MAX.	5	mA
				20	
I_H	I_T=50mA		MAX.	7	mA
dV/dt	V_D=540V Gate Open T_j=110		MIN.	100	V/μs
(dV/dt)c	(dI/dt)c=0.44A/ms, T_j=110		MIN.	3	V/μs
t_{on}	I_G=20mA I_A=200mA I_R=20mA T_j=25		TYP.	2.5	μs
t_{off}				25	

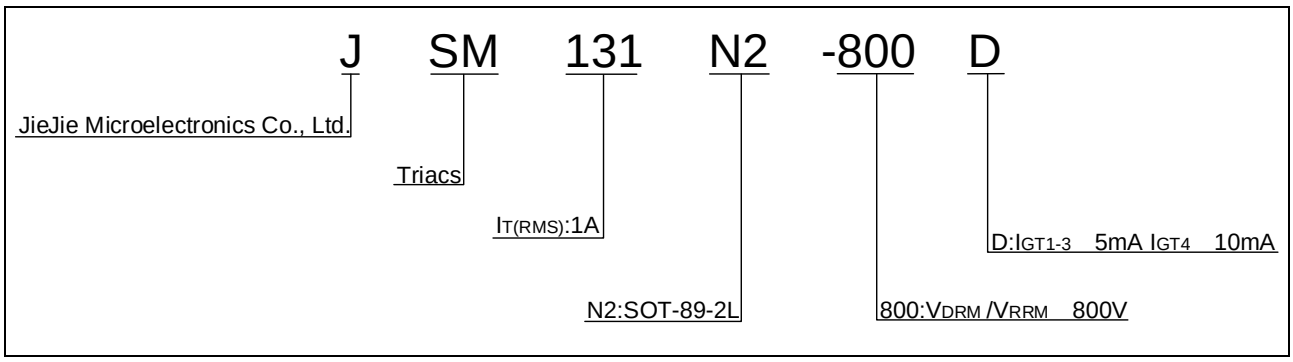
STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM}=1.4A t_p=380μs	T_j=25	1.45	V
V_{TO}	Threshold voltage	T_j=125	0.96	V
R_D	Dynamic resistance	T_j=125	225	mΩ
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=125	0.25	mA

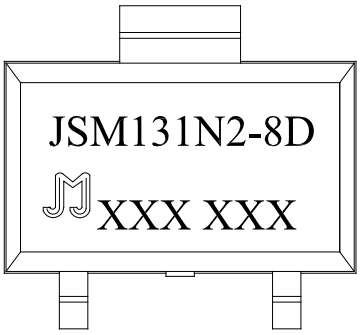
THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	50	/W
$R_{th(j-a)}$	junction to ambient (AC, in free air, S=5cm^2)	100	/W

ORDERING INFORMATION



MARKING



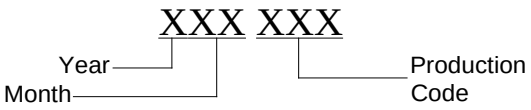


FIG.1: Maximum power dissipation versus RMS on-state current

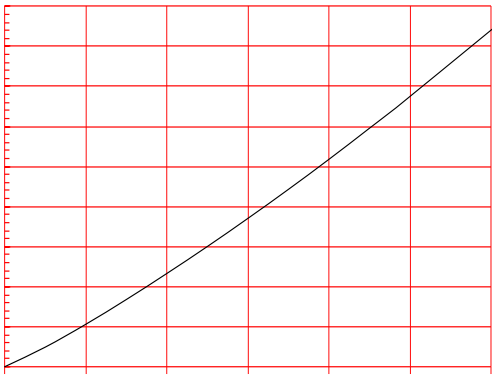


FIG.2: RMS on-state current versus case temperature

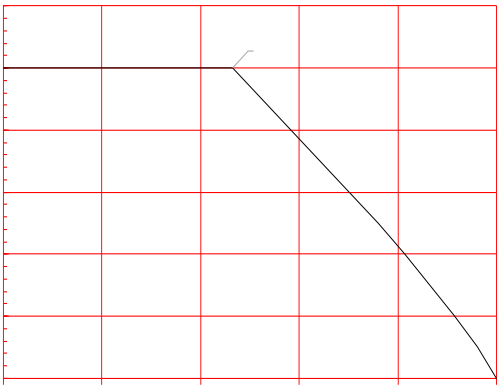


FIG.3: RMS on-state current versus ambient temperature (printed circuit board FR4, copper thickness: 35μm) (full cycle)

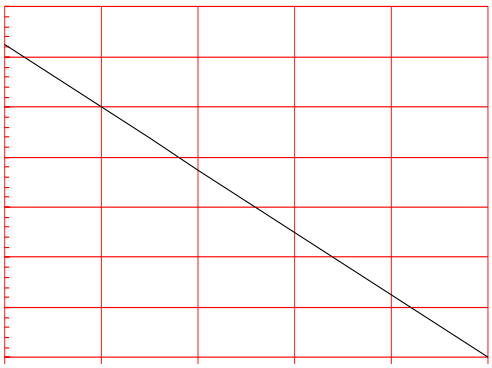
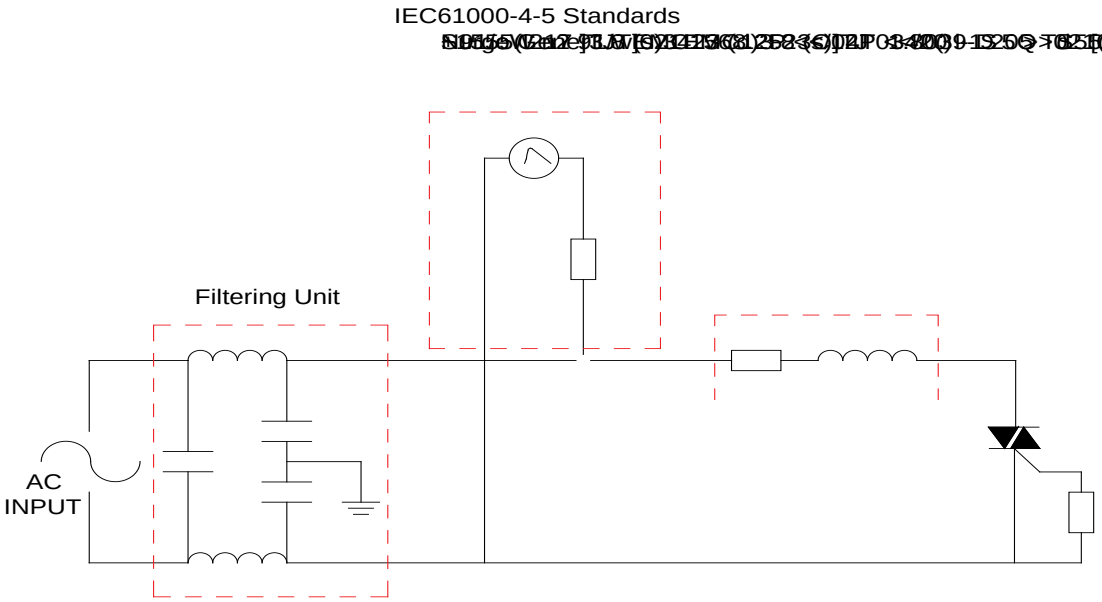


FIG.4: Surge peak on-state current versus number of cycles

JSM131N2-800D

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



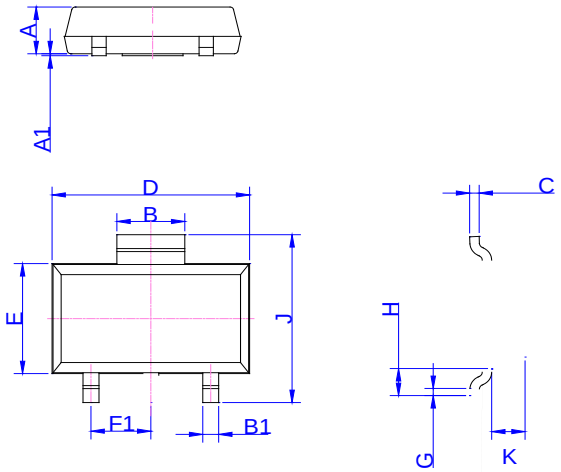
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		- -				
JSM131N2-800D	800	5	10	SOT-89-2L	4,000	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.17, 2023	A.1.0	Last updated
Oct.16, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

PACKAGE MECHANICAL DATA



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