

General purpose
F function
Induction
Operation in
Complying with
TO-92

	Symbol	Value	Unit
	T _{stg}	-40-150	
	T _j	-40-125	
	V _{DRM}	800	V
	V _{RRM}	800	V
	I _{T(RMS)}	1	A
	I _{TSM}	16.5	A

Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{PP}	3.5	kV
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ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33\Omega$	ALL	MAX.	5	mA
V_{GT}		ALL	MAX.	1.3	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k\Omega$	ALL	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	- -	MAX.	5	mA
				10	
I_H	$I_T=50mA$		MAX.	5	mA
dV/dt	$V_D=540V$ Gate Open $T_j=110$		MIN.	20	V/ μs
$(dV/dt)_c$	$(dI/dt)_c=0.44A/ms$, $T_j=110$		MIN.	1	V/ μs
t_{on}	$I_G=10mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	2	μs
t_{off}				20	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=1.4A$ $t_p=380\mu s$	$T_j=25$	1.45	V
V_{TO}	Threshold voltage	$T_j=125$	0.96	V
R_D	Dynamic resistance	$T_j=125$	225	m Ω
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)	60	/W
$R_{th(j-a)}$	junction to ambient (AC)	150	/W

ORDERING INFORMATION

J	ST	131	U	-800	T	-/
JieJie Microelectronics Co., Ltd.	Triacs	$I_{T(RMS)}:1A$	U:TO-92	800: $V_{DRM} / V_{RRM} \geq 800V$	T: $I_{GT1-4} \leq 5mA$	Blank: Bulk Pack -TR: Tape & Reel

MARKING

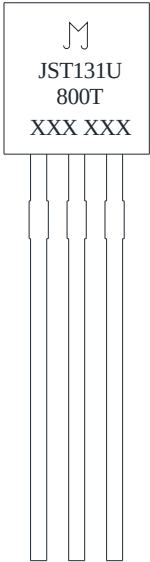


FIG.1: Maximum power dissipation versus RMS on-state current

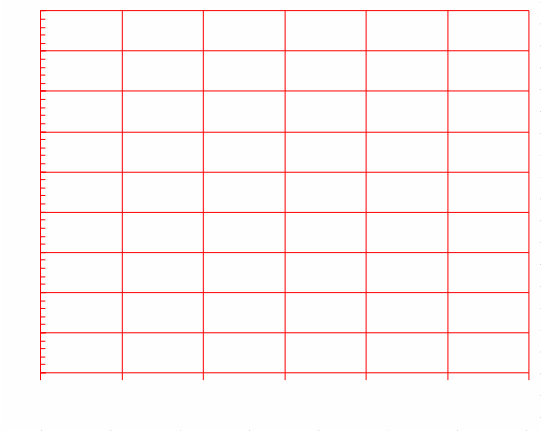
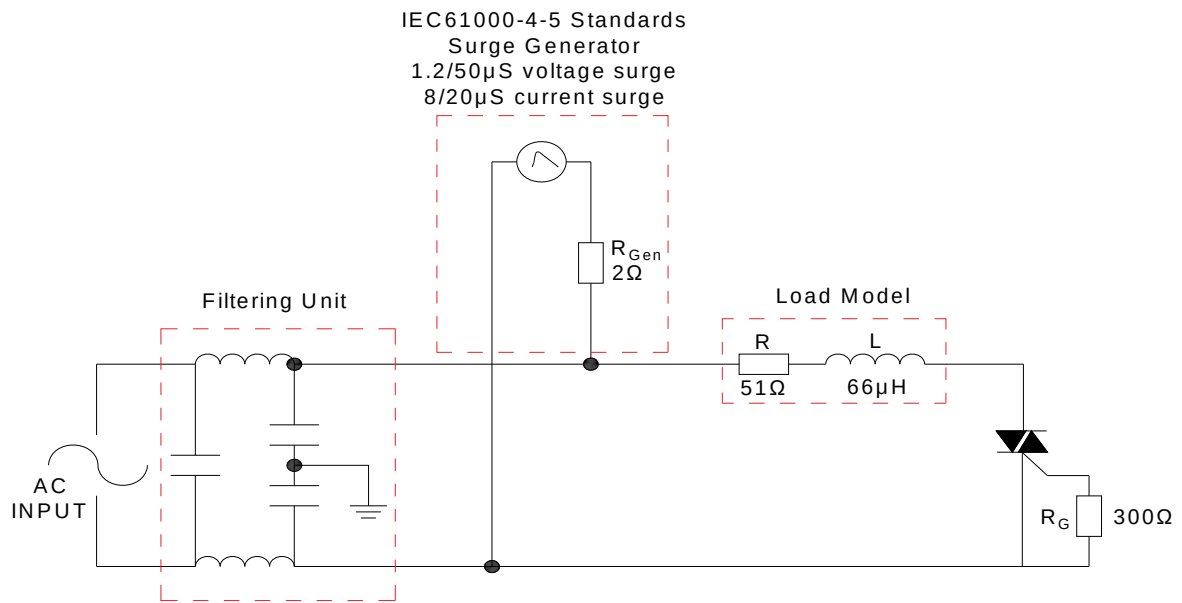


FIG.2: RMS on-state current versus case temperature

FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



ORDERING INFORMATION

Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- - -			
JST131U-800T	800	5	TO-92	1,000	Bulk Pack
JST131U-800T-TR				2,000	Tape & Reel

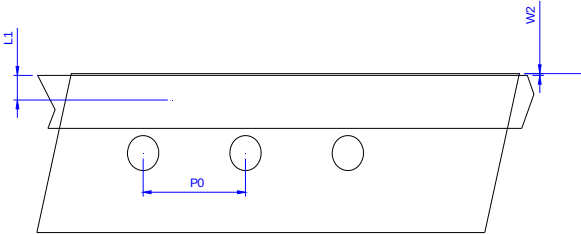
Document Revision History

Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated
Mar.31, 2025	A.2.0	Renew PACKAGE MECHANICAL DATA
Sept.28, 2025	A.2.1	Revise PACKAGE MECHANICAL DATA

JST131U-800T

DELIVERY MODE

PACKAGE	OUTLINE	BAG (PCS)	INNER BOX (PCS)	CARTON BOX (PCS)
TO-92	Bulk Pack	1,000	10,000	50,000



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
P	12.40	12.70	13.00	0.488	0.500	0.512
P0	12.40	12.70	13.00	0.488	0.500	0.512
P1	3.55	3.85	4.15	0.140	0.152	0.163
P2	5.95	6.35	6.75	0.233	0.250	0.265
P	-1.00	0	1.00	-0.039	0	0.039
F1 F2	2.30	2.50	2.70	0.090	0.098	0.106
F1-F2	-0.10	0	0.10	-0.004	0	0.004
W	17.50	18.00	19.00	0.689	0.709	0.748
W0	5.50	6.00	6.50	0.217	0.236	0.256
W1	8.50	9.00	9.50	0.335	0.354	0.374
W2			1.00			0.039
D0	3.80	4.00	4.20	0.150	0.157	0.165
H	-1.00	0	1.00	-0.039	0	0.039
L1	2.50			0.098		
H	18.00	19.00	20.00	0.709	0.748	0.787
H1 H2			3.00			0.119

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