JST132N2-600D 0.5A TRIAC

Rev.A.1.1

The JST132N2-600D 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. Package SOT-89-2L is RoHS compliant.

Symbol	Value	Unit
$I_{T(RMS)}$	0.5	A
V_{DRM} /V_{RRM}	600	V

I_{GT} / / / 5/5/5/10 mA 578f 87 8 re f 82.92 536.64 0.48 0.48 re f

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}	600	V
Repetitive peak reverse voltage (T_j=25)		V_{RRM}	600	V
RMS on-state current (T_C 84)		$I_{T(RMS)}$	0.5	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)		I_{TSM}	6	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)			6.6	
I^2t value for fusing (t_p=10ms , T_j=25)		I^2t	0.18	A^2s
Critical rate of rise of on-state current (I_G=2 × I_{GT} , f=100Hz , T_j=125)	-	dI/dt	50	A s
	-		20	
Peak gate current (t_p=20 s , T_j=125)		I_{GM}	1	A
Average gate power dissipation (T_j=125)		$P_{G(AV)}$	0.1	W
Peak gate power		P_{GM}	5	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.8)		V_{PP}	1.5	kV

(T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D=12V R_L=33	- -	MAX.	5	mA
				10	
V_{GT}		ALL	MAX.	1.3	V
V_{GD}	V_D=V_{DRM} T_j=125 R_L=3.3k	ALL	MIN.	0.2	V
I_L	I_G=1.2I_{GT}	- -	MAX.	10	mA
				20	
I_H	I_T=50mA		MAX.	10	mA
dV/dt	V_D=400V Gate Open T_j=110		MIN.	60	V s
(dV/dt)c	(dI/dt)c=0.3A/ms, T_j=110		MIN.	5	
t_{on}	I_G=20mA I_A=200mA I_R=20mA T_j=25		TYP.	2.5	s
t_{off}				25	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM}=0.85A t_p=380 s	T_j=25	1.5	V
V_{TO}	Threshold voltage	T_j=125	0.98	V
R_D	Dynamic resistance	T_j=125	362	
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	A
I_{RRM}		T_j=125	0.15	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	60	/W
$R_{th(j-a)}$	junction to ambient (AC, in free air, S=5cm^2)	100	/W

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

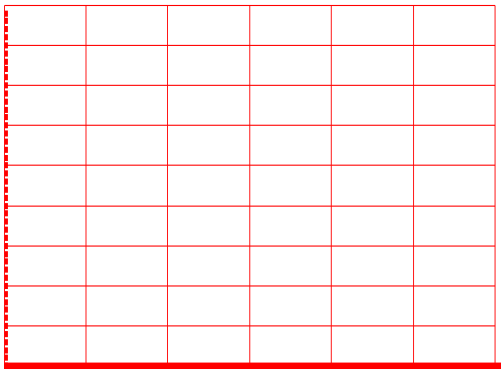
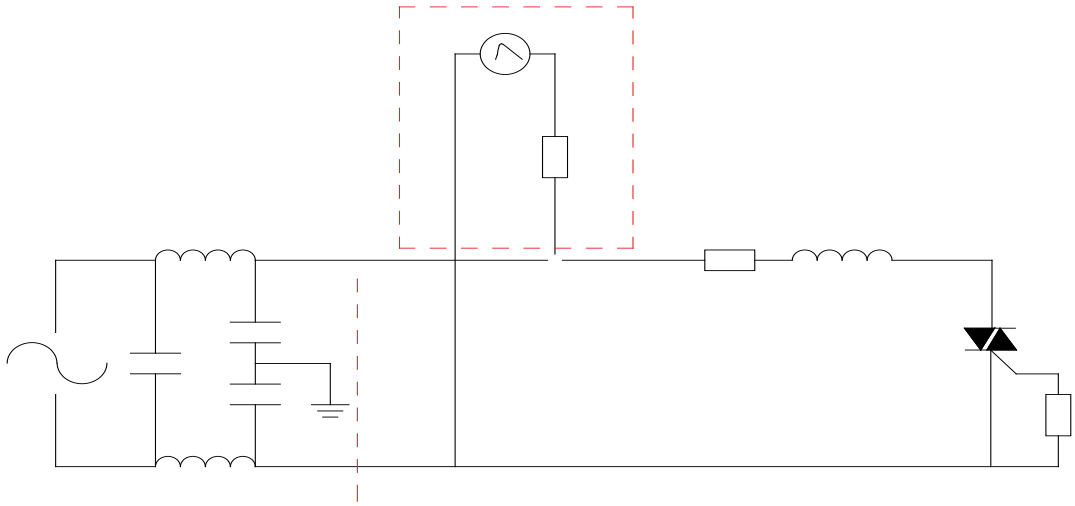


FIG.2: RMS on-state current versus case temperature

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

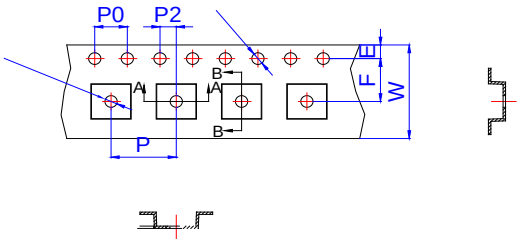
FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		-	-			
JST132N2-600D	600	5	10	SOT-89-2L	4,000	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated
Oct.16, 2025	A.1.1	Revise PACKAGE MECHANICAL



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
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
P2	1.90	2.00	2.10	0.075	0.079	0.082
D	-	1.50	1.60	-	0.059	0.063
D1	1.50			0.059		
P0	3.90	4.00	4.10	0.154	0.157	0.161
10P0	39.80	40.00	40.20	1.567	1.575	1.583
W			12.30			0.482
P	7.90	8.00	8.10	0.311	0.315	0.319
A0	5.20	5.30	5.40	0.204	0.208	0.212
B0	4.80	4.90	5.00	0.188	0.192	0.196
K0	1.75	1.85	1.95	0.069	0.073	0.076
t	0.20	0.25	0.30	0.008	0.010	0.012
	3°		5°	3°		5°

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.
Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document supersedes and replaces all information previously supplied.

is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd.

Copyright © 2025 Jiangsu JieJie Microelectronics Co., Ltd. All rights reserved.