

**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.

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 ($T_j=25^\circ\text{C}$)	V_{DRM}	600	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	600	V
RMS on-state current ($T_c=84^\circ\text{C}$)	$I_{T(RMS)}$	0.5	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	6	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		6.6	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	0.18	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$)	-	50	$\text{A}/\mu\text{s}$
	-	20	
Peak gate current ($t_p=20\mu\text{s}$, $T_j=125^\circ\text{C}$)	I_{GM}	1	A
Average gate power dissipation ($T_j=125^\circ\text{C}$)	$P_{G(AV)}$	0.1	W

Peak gate power op0.48;>BDCID 8 351.192MP

(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/μs
(dV/dt) _c	(dI/dt) _c =0.3A/ms, T _j =110		MIN.	5	V/μs
t _{on}	I _G =20mA I _A =200mA I _R =20mA T _j =25		TYP.	2.5	μs
t _{off}				25	

Symbol	Parameter		Value(MAX.)	Unit
V _{TM}	I _{TM} =0.85A t _p =380μs	T _j =25	1.5	V
V _{TO}	Threshold voltage	T _j =125	0.98	V
R _D	Dynamic resistance	T _j =125	362	m
I _{DRM}	V _D =V _{DRM} V _R =V _{RDM}	T _j =25	5	μA
I _{RDM}		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

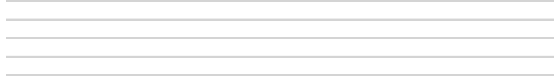
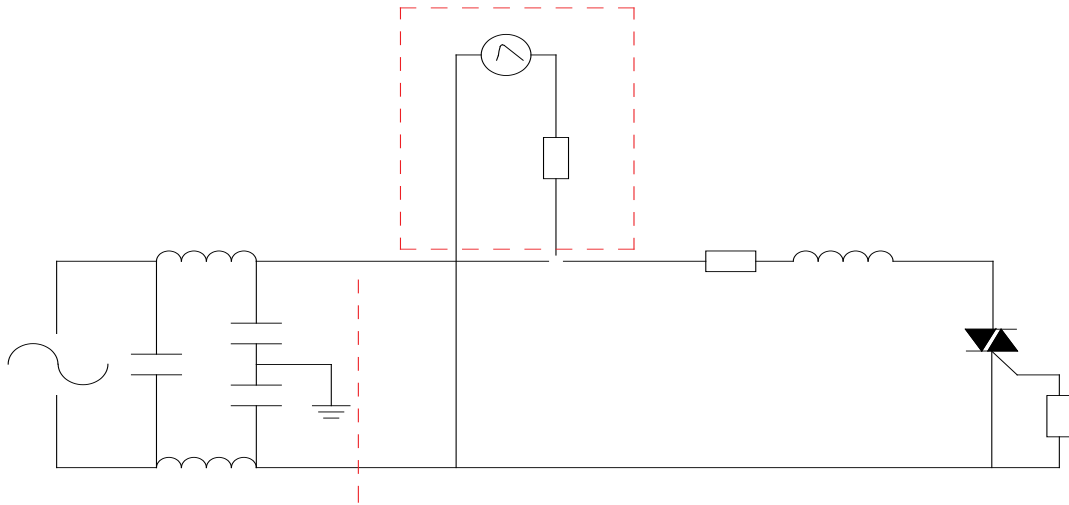


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



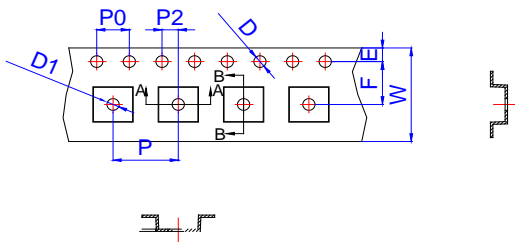
JST132N2-600D

 JieJie Microelectronics Co., Ltd.

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°

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