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)		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 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 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

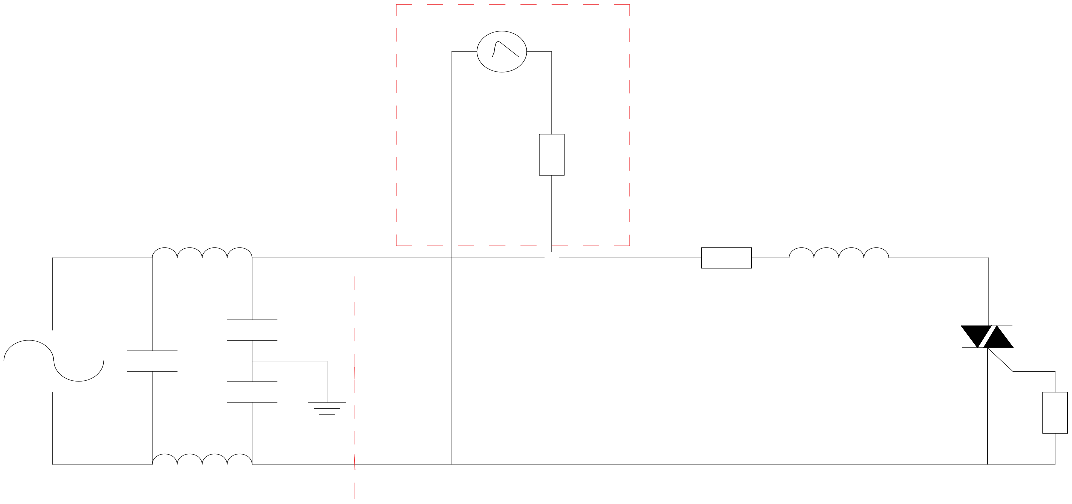
Symbol	**Parameter**	**Value**	**Unit**
$R_{th(j\text{-}c)}$	junction to case (AC)	60	/W
$R_{th(j\text{-}a)}$	junction to ambient (AC, in free air, S=5cm^2)	100	/W

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

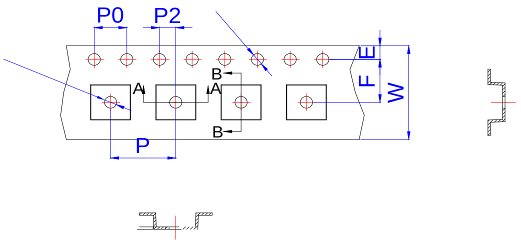
FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



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 MECHANICALA



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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