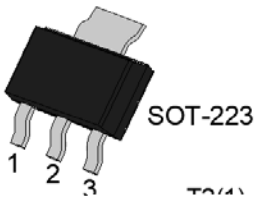
ACJ110-8V 1A TRIAC

Rev.A.1.1

The ACJ110-8V 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. The ACJ110-8V embeds a TVS structure to absorb the inductive turn-off energy such as those described in the IEC 61000-4-5 standards. At the same time, the triac shields the positive signal trigger to reduce the probability of product misoperation. It is triggered with a negative gate current flowing out of the gate pin. Package SOT-223 is RoHS compliant.

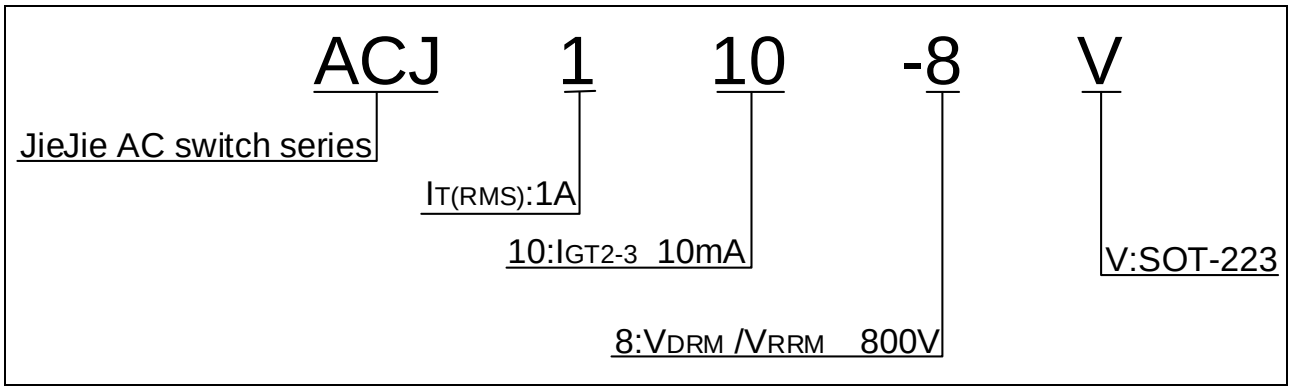


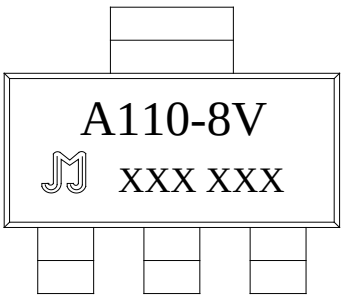
Symbol	Value	Unit
$I_{T(RMS)}$	1	A
V_{DRM} /V_{RRM}	800	V
I_{GT} /	10/10	mA

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}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current (T_C 93)	$I_{T(RMS)}$	1	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	12	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		13.2	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	0.72	A^2s
Critical rate of rise of on-state current (I_G=2 I_{GT} , f=100Hz , T_j=125)	dI/dt	100	A s
Peak gate current (t_p=20 s , T_j=125)	I_{GM}	1	A
Positive applied gate voltage	V_{GM}	15	V

Average gate power dissipation (T_j=125)	$P_{G(AV)}$	0.1	W
Peak gate power	P_{GM}	2	W

Peak pulse voltage
(T_j=25 ; non-repetitive,off-state;FIG.8) PGM





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LOT NO.

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

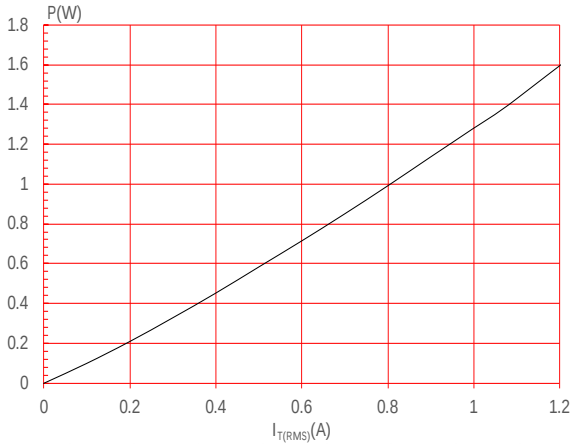

FIG.2: RMS on-state current versus case temperature

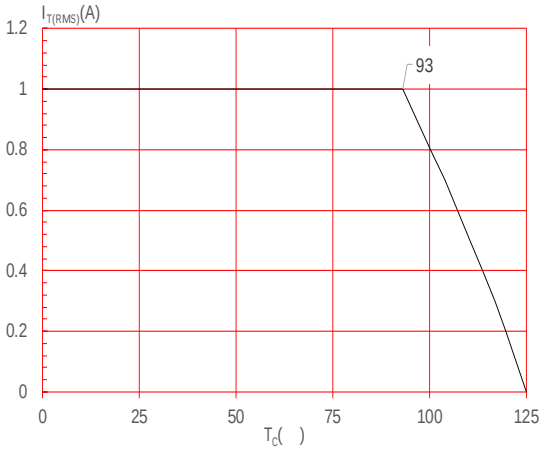

FIG.3: RMS on-state current versus ambient temperature (printed circuit board FR4,copper thi

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

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

ACJ110-8V

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
ACJ110-8V	800	10	SOT-223	4,000	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.13, 2023	A.1.0	Last updated
Oct.23, 2025	A.1.1	Revise

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	1.50	1.60	1.80	0.059	0.063	0.071
A1	0.01	0.06	0.10	0.001	0.002	0.004
B	2.90	3.00	3.10	0.114	0.118	0.122
B1	0.60	0.70	0.80	0.024	0.028	0.031
C	0.22	0.26	0.32	0.009	0.010	0.013
D	6.30	6.50	6.70	0.248	0.256	0.264
E	3.30	3.50	3.70	0.130	0.138	0.146
F	4.40			0.173		
F1	2.20			0.087		
G	0.50		1.00	0.020		0.039
H	1.50	1.75	2.00	0.059	0.069	0.079
J	6.70	7.00	7.30	0.264	0.276	0.287
K						

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