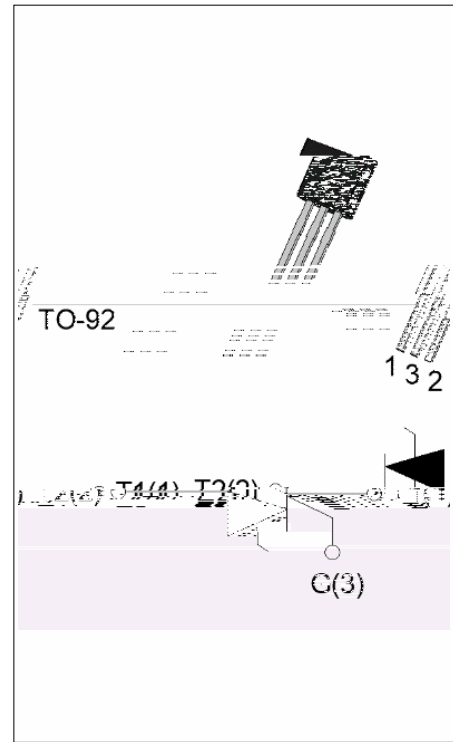


ACJT01U-800TW 1A TRIAC

Rev.A.2.1

DESCRIPTION:

The ACJT01U-800TW 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 ACJT01U-800TW embeds a TVS structure to absorb the inductive turn-off energy such as those described in the IEC 61000-4-5 standards. Package TO-92 is RoHS compliant.


MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	1	A
V_{DRM}/V_{RRM}	800	V
$I_{GT} / /$	5/5/5	mA

ABSOLUTE MAXIMUM RATINGS

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 ($T_j=25^\circ C$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^\circ C$)	V_{RRM}	800	V
RMS on-state current ($T_c = 39^\circ C$)	$I_{T(RMS)}$	1	A
Non repetitive surge peak on-state current (full cycle, $t_p=20ms$, $T_j=25^\circ C$)	I_{TSM}	15	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6ms$, $T_j=25^\circ C$)		16.5	
I^2t value for fusing ($t_p=10ms$, $T_j=25^\circ C$)	I^2t	1.25	A^2s
Critical rate of rise of on-state current ($I_G=2 I_{GT}$, $f=100Hz$, $T_j=125^\circ C$)	di/dt	50	$A/\mu s$
Peak gate current ($t_p=20\mu s$, $T_j=125^\circ C$)	I_{GM}	2	A
Average gate power dissipation ($T_j=125^\circ C$)	$P_{G(AV)}$	0.1	W
Peak gate power	P_{GM}	5	W

Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{pp}	3.75	kV
--	----------	------	----

ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33$	- -	MAX.	5	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k$	- -	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	-	MAX.	10	mA
				20	
I_H	$I_T=100mA$		MAX.	10	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	650	V/ μs
(dI/dt) _c	(dV/dt) _c =10V/ μs , $T_j=125$		MIN.	0.6	A/ms
t_{on}	$I_G=10mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	2	

ORDERING INFORMATION

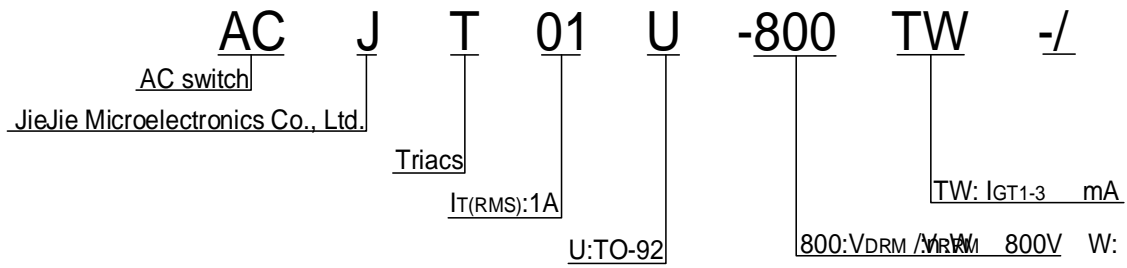


FIG.1: Maximum power dissipation versus RMS on-state current

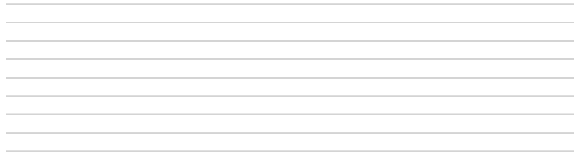
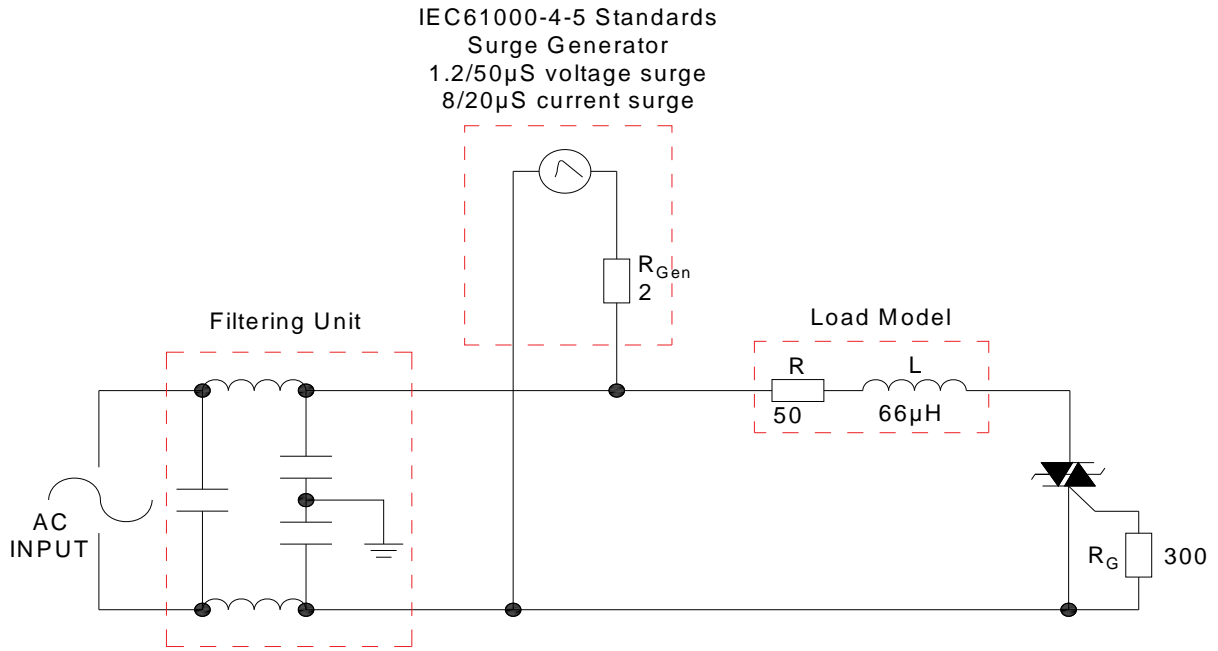


FIG.2: RMS on-state current versus case temperature

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



LEAD FORMING AND SOLDERING

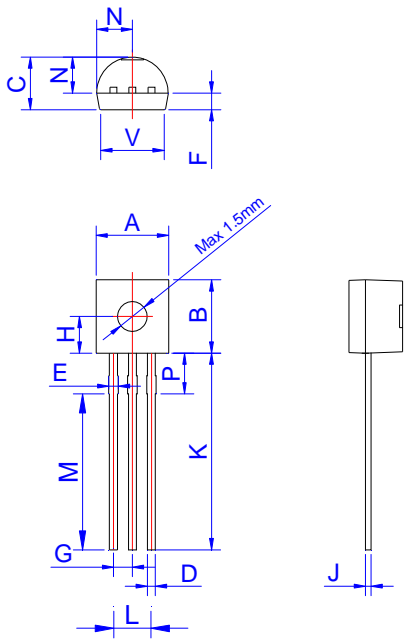
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
ACJT01U-800TW	800	5	TO-92	1,000	Bulk Pack
ACJT01U-800TW-TR				2,000	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.13, 2023	A.1.0	Last updated
Mar.27, 2025	A.2.0	Renew PACKAGE MECHANICAL DATA
Sept.28, 2025	A.2.1	Revise PACKAGE MECHANICAL DATA

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.45		5.20	0.175		0.205
B	4.32		5.33	0.170		0.210
C	3.18		4.19	0.125		0.165
D	0.407		0.533	0.016		0.021
E	0.50		0.70	0.020		0.028
F	1.10		1.30	0.043		0.051
G	1.10		1.40	0.043		0.055
H	2.20		2.40	0.087		0.094
J	0.36		0.50	0.014		0.020
K	12.70		15.0	0.500		0.591
L	2.44		2.64	0.096		0.104
M	11.64		12.04	0.458		0.474
N	2.04		2.66	0.080		0.105
P	1.80		2.30	0.071		0.091
V	4.10		4.50	0.161		0.177


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			
P0	12.40	12.70	13.00			
P1	3.55	3.85	4.15			
P2	5.95	6.35	6.75			
P	-1.00	0	1.00			
F1 F2	2.30	2.50	2.70			
F1-F2	-0.10	0	0.10			
W	17.50	18.00	19.00		0 r 1500.0	4
W0	5.50	6.00	6.50	-3	30	: 339
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

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.