



ACJT1U 1A TRIACs

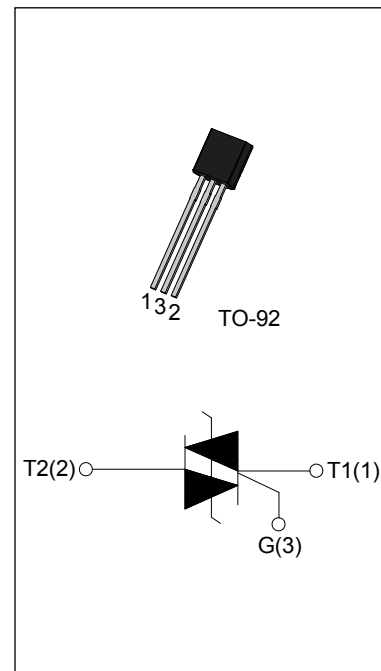
Rev.8.0

DESCRIPTION:

ACJT1U triacs with high ability to withstand the shock loading of large current provide high dv/dt rate with strong resistance to electromagnetic interference. They are especially recommended for use on inductive load and serious electromagnetic interference place. Package TO-92 is RoHS compliant. (2011/65/EU)

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	1	A
V_{DRM}/V_{RRM}	600/800/1000	V
I_{GT}	≤ 5 or ≤ 10	mA



ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Storage junction temperature range		T_{stg}	-40-150	$^{\circ}C$
Operating junction temperature range		T_j	-40-125	$^{\circ}C$
Repetitive peak off-state voltage($T_j=25^{\circ}C$)		V_{DRM}	600/800/1000	V
Repetitive peak reverse voltage($T_j=25^{\circ}C$)		V_{RRM}	600/800/1000	V
Non repetitive surge peak Off-state voltage		V_{DSM}	$V_{DRM} + 100$	V
Non repetitive peak reverse voltage		V_{RSM}	$V_{RRM} + 100$	V
RMS on-state current	TO-92 ($T_C=50^{\circ}C$)	$I_{T(RMS)}$	1	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)		I_{TSM}	10	A
I^2t value for fusing ($t_p=10ms$)		I^2t	1.12	A^2s
Rate of rise of on-state current ($I_G=2 \times I_{GT}$)		di_T/dt	50	$A/\mu s$
Peak gate current		I_{GM}	1	A
Average gate power dissipation		$P_{G(AV)}$	0.2	W
Peak gate power		P_{GM}	1	W

ELECTRICAL CHARACTERISTICS (T_j=25°C unless otherwise specified)

Symbol	Test Condition	Quadrant		Value		Unit
				ACJT105	ACJT110	
I _{GT}	V _D =12V R _L =33Ω	I - II -III	MAX	5	10	mA
V _{GT}		I - II -III	MAX	1.3		V
V _{GD}	V _D =V _{DRM} T _j =125°C R _L =3.3KΩ	I - II -III	MIN	0.2		V
I _L	I _G =1.2I _{GT}	I -III	MAX	15	25	mA
		II		25	35	
I _H	I _T =100mA		MAX	10	20	mA
dV/dt	V _D =2/3V _{DRM} Gate Open T _j =125°C		MIN	400	600	V/μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
V _{TM}	I _{TM} =1.4A t _p =380μs	T _j =25°C	1.5	V
I _{DRM}	V _D =V _{DRM} V _R =V _{RRM}	T _j =25°C	5	μA
I _{RRM}		T _j =125°C	0.5	mA

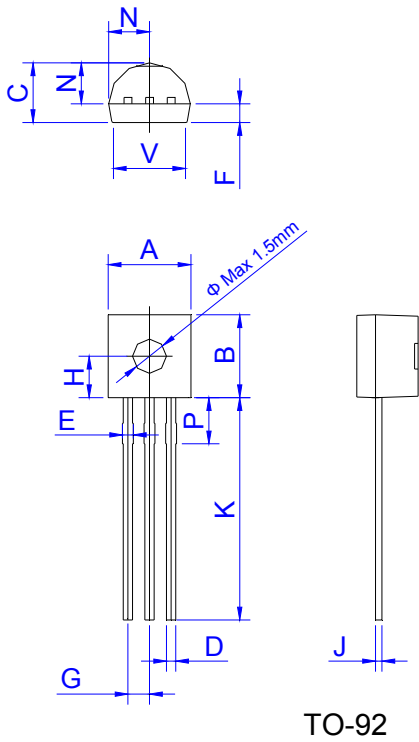
THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
R _{th(j-c)}	junction to case(AC)	TO-92	60	°C/W

ORDERING INFORMATION

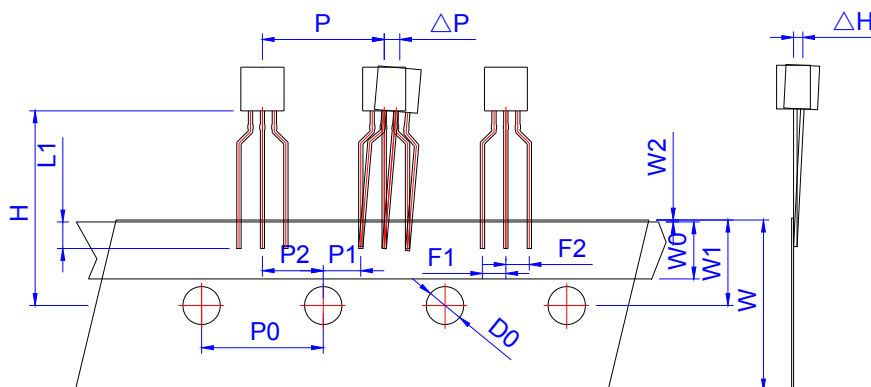
<p>AC J T 1 05 -6 U -TR</p> <p>AC switch JieJie Microelectronics Co.,Ltd</p> <p>Triacs I_{T(RMS)}:1A</p> <p>05: I_{GT1-3}≤5mA 10: I_{GT1-3}≤10mA</p> <p>6: V_{DRM} /V_{RRM}≥600V 8: V_{DRM} /V_{RRM}≥800V 10: V_{DRM} /V_{RRM}≥1000V</p> <p>TR: Tape & Reel Blank: Ammopack</p> <p>U:TO-92</p>

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	0.024		0.031
F	-	1.1	-	-	0.043	-
G	-	1.27	-	-	0.050	-
H	-	2.30	-	-	0.091	-
J	0.36		0.50	0.014		0.020
K	12.70		15.0	0.500		0.591
N	2.04		2.66	0.080		0.105
P	1.86		2.06	0.073		0.081
V	-		4.3	-		0.169

INFORMATION OF TAPE & REEL - TO-92



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
P	12.40	12.70	13.00	0.488	0.500	0.512
P0	12.40	12.70	13.00	0.488	0.500	0.512
P1	3.55	3.85	4.15	0.140	0.152	0.163
P2	6.05	6.35	6.65	0.238	0.250	0.262
ΔP	-1.0	0	1.0	-0.039	0	0.039
F1、F2	2.20	2.50	2.80	0.087	0.098	0.110
F1-F2	-0.3	0	0.3	-0.012	0	0.012
W	17.50	18.00	19.00	0.689	0.709	0.748
W0	5.50	6.00	6.50	0.217	0.236	0.256
W1	8.50	9.00	9.50	0.335	0.354	0.374
W2			1.0			0.039
D0	3.80	4.0	4.20	0.150	0.157	0.165
ΔH	-1.0	0	1.0	-0.039	0	0.039
L1	2.5			0.098		
H	18.0	19.0	20.0	0.709	0.748	0.787

Packaging Information	Reel	Inner Box	Outer Box
Net Weight (g)	140	80	600
Quantity (pcs)	/	2000	20000
N. W. Per Unit (mg/pcs)	189		

PACKAGE INFORMATION

PACKAGE	WEIGHT (PER PCS)	OUTLINE	BAG (PCS)	INNER BOX (PCS)	PER CARTON
TO-92	0.1894g	Ammopack	1,000	10,000	50,000
PACKAGE	WEIGHT (PER PCS)	OUTLINE	REEL	INNER BOX (PCS)	PER CARTON
TO-92	0.1894g	Tape & Reel	2,000	2,000	20,000

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

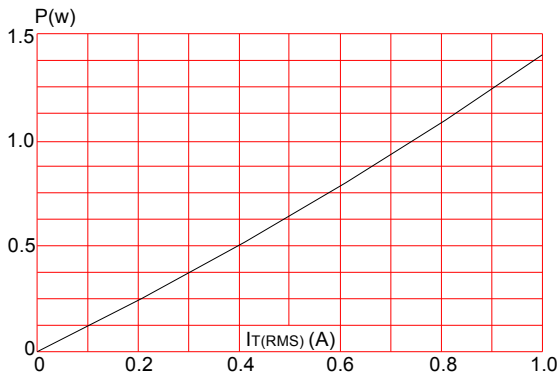


FIG.2: RMS on-state current versus case temperature

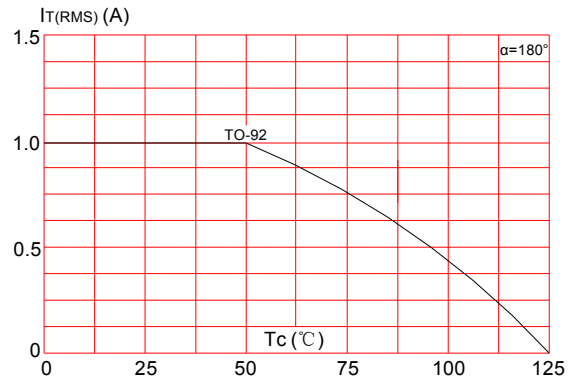


FIG.3: Surge peak on-state current versus number of cycles

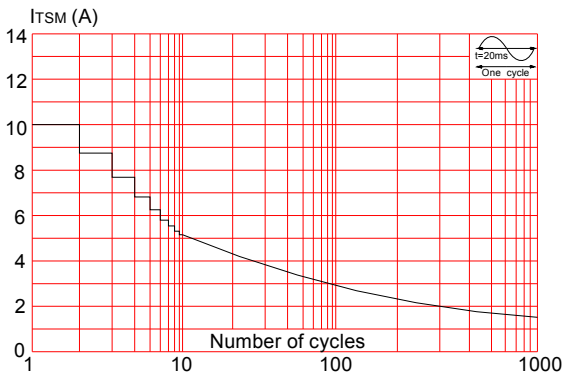


FIG.4: On-state characteristics (maximum values)

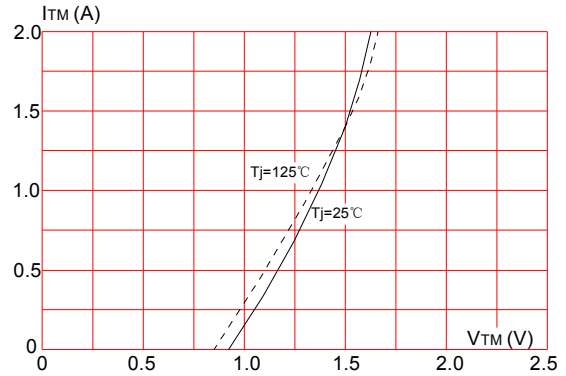


FIG.5: Relative variations of gate trigger current versus junction temperature

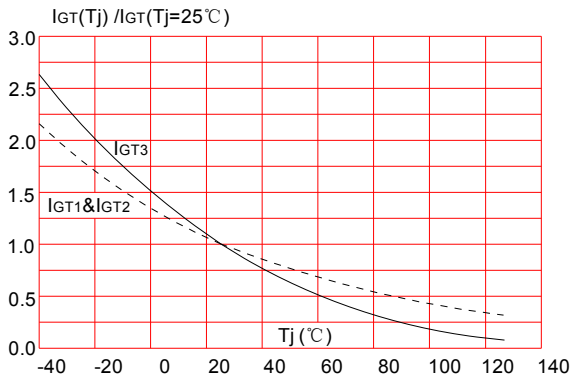
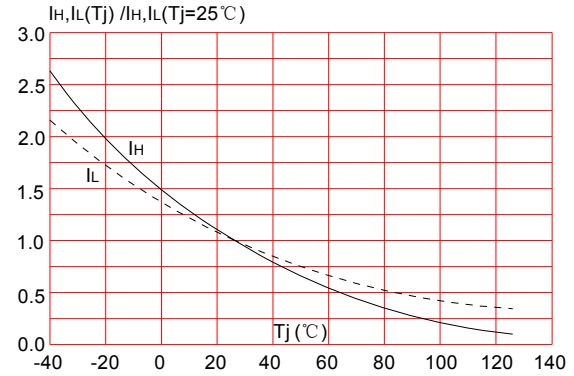


FIG.6: Relative variations of holding current, latching current versus junction temperature




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 is the eighth version which is made in 14-Apr.-2020. This document supersedes and replaces all information previously supplied.

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

Copyright ©2020 Jiangsu JieJie Microelectronics Co.,Ltd. Printed All rights reserved.