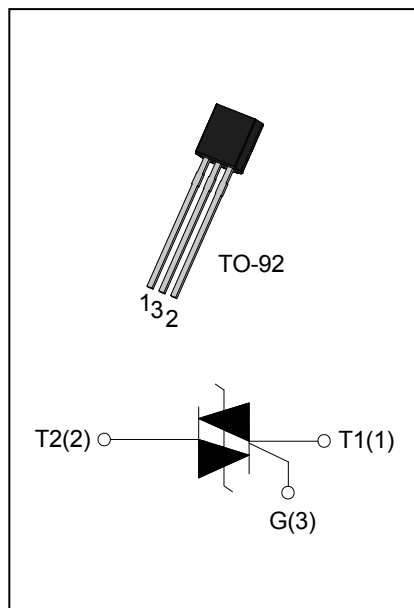




DESCRIPTION:

With high ability to withstand the shock loading of large current, ACJT01U triacs 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}	800/1000	V

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit	
Storage junction temperature range	T_{stg}	-40-150	°C	
Operating junction temperature range	T_j	-40-125	°C	
Repetitive peak off-state voltage($T_j = 25^{\circ}C$)	V_{DRM}	800/1000	V	
Repetitive peak reverse voltage($T_j = 25^{\circ}C$)	V_{RRM}	800/1000	V	
RMS on-state current	TO-92 ($T_C = 56^{\circ}C$)	$I_{T(RMS)}$	1	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	I_{TSM}	12	A	
I^2t value for fusing ($t_p = 10ms$)	I^2t	0.72	A^2s	
Rate of rise of on-state current ($I_G = 2 \times I_{GT}$)	di/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}	0.5	W	
Non repetitive mains peak mains voltage (FIG.7)	V_{PP}	4.5	kV	

ELECTRICAL CHARACTERISTICS ($T_j=25^\circ\text{C}$ unless otherwise specified)

Symbol	Test Condition	Quadrant		Value		Unit
				TW	SW	
I_{GT}	$V_D=12\text{V } R_L=33\Omega$	I - II -III	MAX	5	10	mA
V_{GT}		I - II -III	MAX	1.3		V
V_{GD}	$V_D=V_{DRM} T_j=125^\circ\text{C}$ $R_L=3.3\text{K}\Omega$	I - II -III	MIN	0.2		V
I_L	$I_G=1.2I_{GT}$	I -III	MAX	10	20	mA
		II		15	30	
I_H	$I_T=100\text{mA}$		MAX	10	20	mA
dV/dt	$V_D=2/3V_{DRM}$ Gate Open $T_j=125^\circ\text{C}$		MIN	200	500	V/ μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
V_{TM}	$I_{TM}=2.8\text{A } t_p=380\mu\text{s}$	$T_j=25^\circ\text{C}$	1.6	V
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25^\circ\text{C}$	5	μA
I_{RRM}		$T_j=125^\circ\text{C}$	1	mA

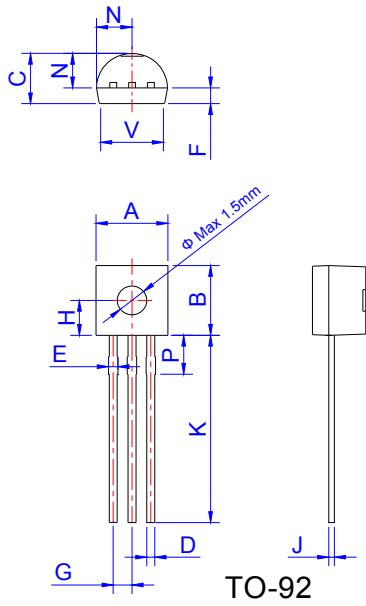
THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	TO-92	11.3	$^\circ\text{C/W}$

ORDERING INFORMATION

AC <small>AC switch</small> <small>JieJie Microelectronics Co.,Ltd</small>	J <small>Triacs</small>	T <small>$I_{T(RMS)}:1\text{A}$</small>	01 <small>U:TO-92</small>	U	-800 <small>800:$V_{DRM} / V_{RRM} \geq 800\text{V}$ 1000:$V_{DRM} / V_{RRM} \geq 1000\text{V}$ </small>	TW <small>TW: $I_{GT1-3} \leq 5\text{mA}$ SW: $I_{GT1-3} \leq 10\text{mA}$</small>
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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	-	1.1	-	-	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

PACKAGE INFORMATION

PACKAGE	WEIGHT (PER PCS)	OUTLINE	BAG (PCS)	INNER BOX (PCS)	PER CARTON
TO-92	0.1894g	Shielding Bag	1,000	10,000	30,000

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

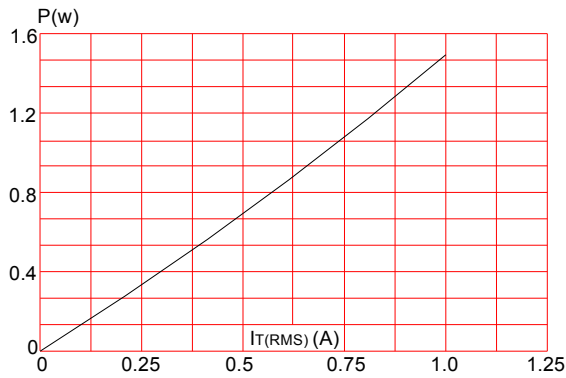


FIG.2: RMS on-state current versus case temperature

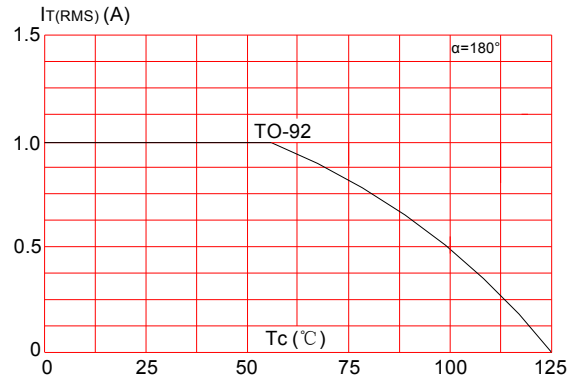


FIG.3: Surge peak on-state current versus number of cycles

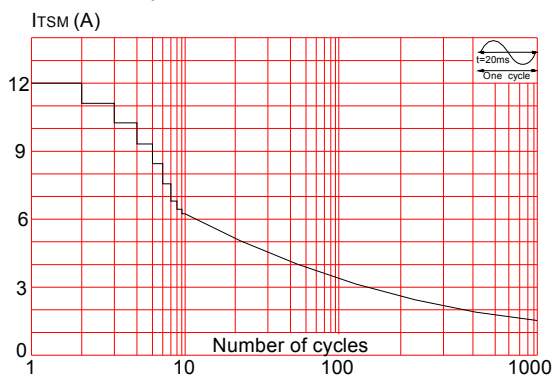


FIG.4: On-state characteristics (maximum values)

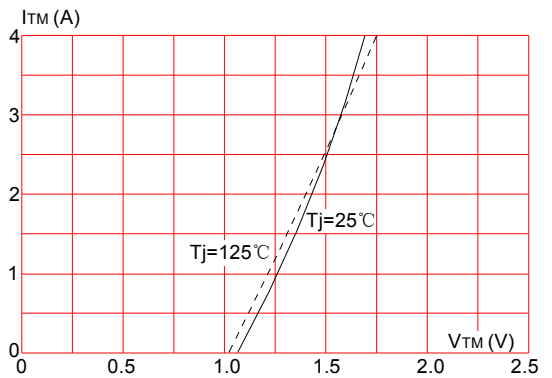


FIG.5: Relative variations of gate trigger current versus junction temperature

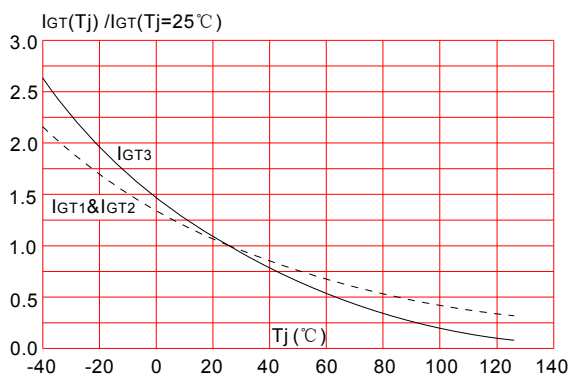


FIG.6: Relative variations of holding current, latching current versus junction temperature

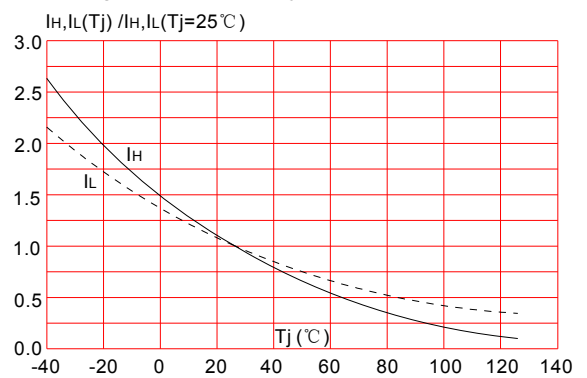
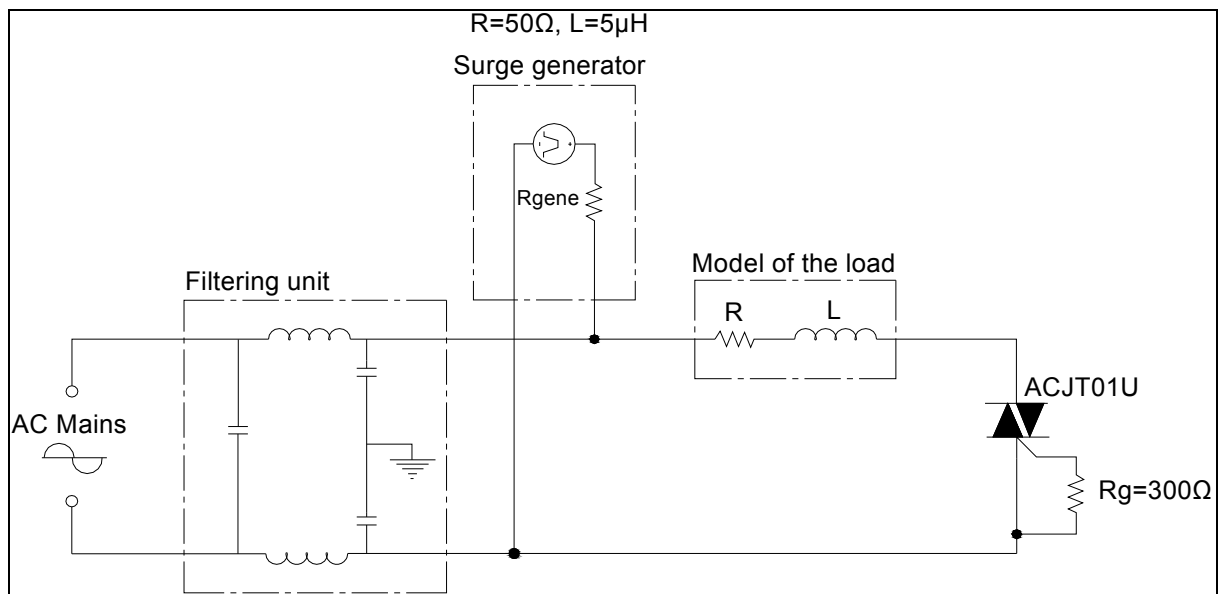


Fig.7: Overvoltage ruggedness test circuit for resistive and inductive loads for IEC 61000-4-5 standards




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