



ACJT04 Series 4A TRIACs

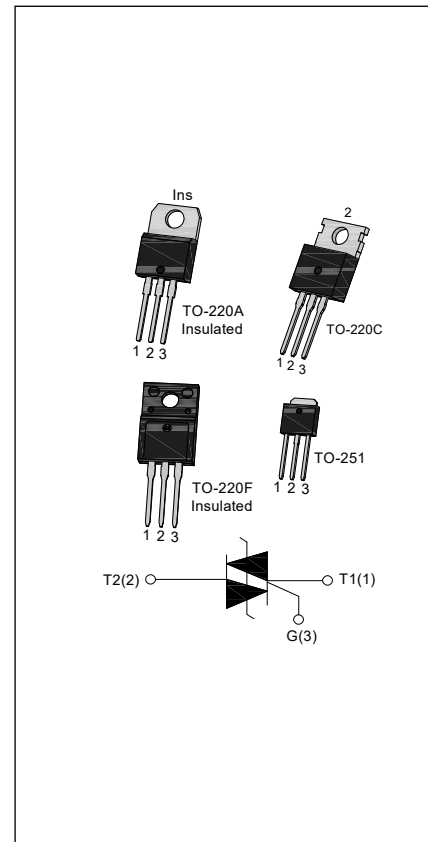
Rev.2.0

DESCRIPTION:

The ACJT04 series of double mesa technology provide high interference immunity, They can be used as an static ON/OFF function in electrical control system, and used as a driver of low power and high inductance or resistive loads, such as jet pumps of dishwashers, fans of air-conditioner ... From all three terminals to external heatsink, ACJT04A provides a rated insulation voltage of 2500 V_{RMS}, and ACJT04F provides a rated insulation voltage of 2000 V_{RMS}. (File ref: E252906). All the packages are RoHS compliant. (2011/65/EU)

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	4	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-251/ TO-220A(Ins) ($T_C=110^{\circ}C$)	$I_{T(RMS)}$	4	A
	TO-220C ($T_C=115^{\circ}C$)			
	TO-220F(Ins) ($T_C=103^{\circ}C$)			
Non repetitive surge peak on-state current (full cycle, F=50Hz)		I_{TSM}	30	A
I^2t value for fusing ($t_p=10ms$)		I^2t	4.5	A ² s
Rate of rise of on-state current ($I_G=2 \times I_{GT}$)		dI_T/dt	50	A/ μs

Peak gate current	I_{GM}	1	A
Average gate power dissipation	$P_{G(AV)}$	0.1	W
Peak gate power	P_{GM}	1	W

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

Symbol	Test Condition	Quadrant		Value			Unit
				TW	SW	CW	
I_{GT}	$V_D=12\text{V } R_L=33\Omega$	I - II -III	MAX	5	10	35	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	50	mA
		II		20	30	60	
I_H	$I_T=100\text{mA}$		MAX	10	15	40	mA
dV/dt	$V_D=2/3V_{DRM}$ Gate Open $T_j=125^{\circ}\text{C}$		MIN	50	200	500	V/ μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
V_{TM}	$I_{TM}=5.6\text{A } t_p=380\mu\text{s}$	$T_j=25^{\circ}\text{C}$	1.55	V
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25^{\circ}\text{C}$	10	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-251	2.9	$^{\circ}\text{C/W}$
		TO-220A(Ins)	3.9	
		TO-220C	2.6	
		TO-220F(Ins)	4.3	

ORDERING INFORMATION

AC	J	T	04	H	-800	TW	-/
AC switch JieJie Microelectronics Co.,Ltd		Triacs					Blank: Tube
		$I_T(RMS): 4A$					
		H: TO-251					
		A: TO-220A(Ins)					
		F: TO-220F(Ins)					
		C: TO-220C					
					800: $V_{DRM} / V_{RRM} \geq 800V$		
					1000: $V_{DRM} / V_{RRM} \geq 1000V$		
						TW: $I_{GT1-3} \leq 5mA$	
						SW: $I_{GT1-3} \leq 10mA$	
						CW: $I_{GT1-3} \leq 35mA$	

MARKING

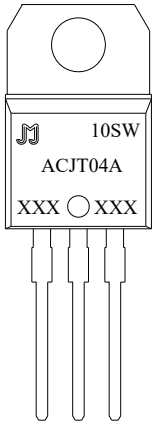
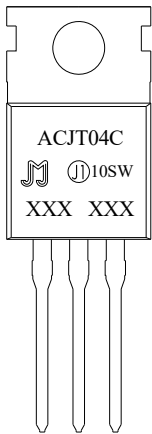
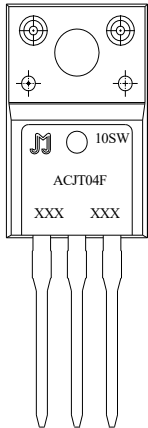
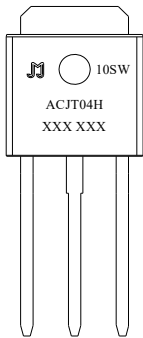
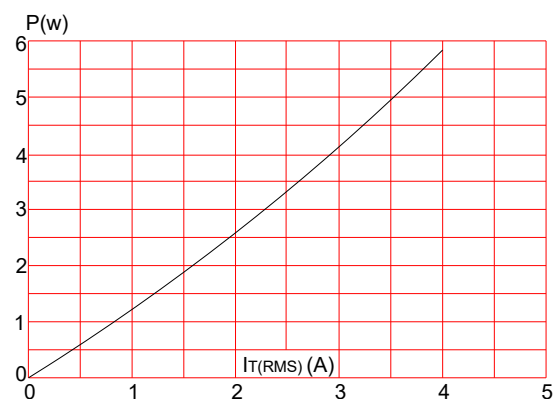
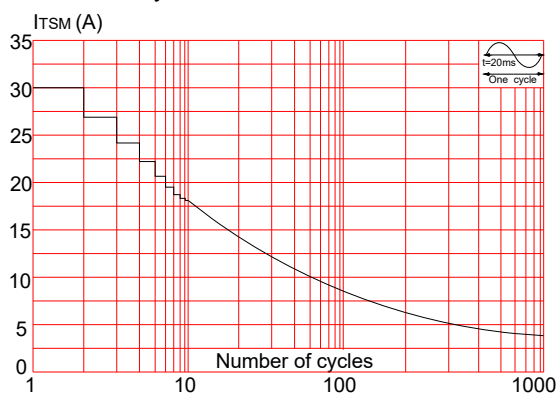
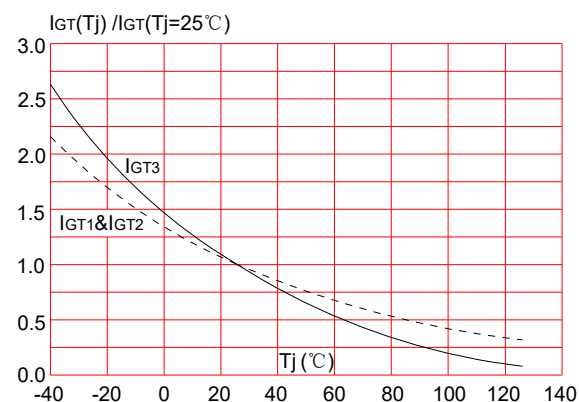
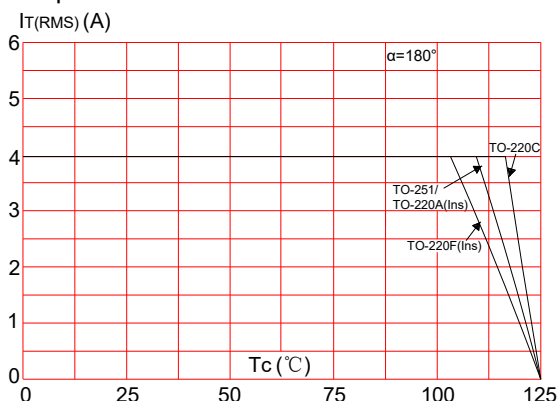
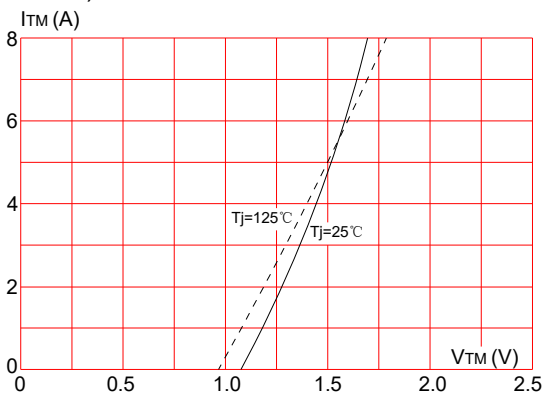
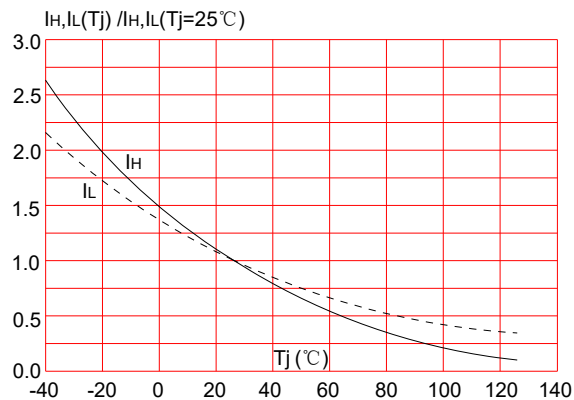
 10SW ACJT04A XXX ○ XXX	 ACJT04C 10SW XXX XXX
 10SW ACJT04F XXX XXX	 10SW ACJT04H XXX XXX
XXX XXX Year Production Month Code	

FIG.1 Maximum power dissipation versus RMS on-state current**FIG.3:** Surge peak on-state current versus number of cycles**FIG.5:** Relative variations of gate trigger current versus junction temperature**FIG.2:** RMS on-state current versus case temperature**FIG.4:** On-state characteristics (maximum values)**FIG.6:** Relative variations of holding current, latching current versus junction temperature

ORDERING INFORMATION

Order code	Voltage V _{DRM} /V _{RRM} (V)	IGT (mA)	Package	Base qty. (pcs)	Delivery mode
ACJT04A-800/1000TW	800/1000	5	TO-220A(Ins)	50	Tube
ACJT04A-800/1000SW		10			
ACJT04A-800/1000CW		35			
ACJT04C-800/1000TW		5	TO-220C		
ACJT04C-800/1000SW		10			
ACJT04C-800/1000CW		35			
ACJT04F-800/1000TW		5	TO-220F(Ins)		
ACJT04F-800/1000SW		10			
ACJT04F-800/1000CW		35			
ACJT04H-800/1000TW		5	TO-251	80	
ACJT04H-800/1000SW		10			
ACJT04H-800/1000CW		35			

Document Revision History

Date	Revision	Changes
July 12, 2021	2	Last update

Technical drawing of a 3.9mm probe tip, showing three views: top, front, and side.

Top View: Shows the rectangular base of the probe tip with two pins. The width is labeled E .

Front View: Shows the central hole with a diameter of $\Phi 3.7-3.9\text{mm}$. The total height is H . The distance from the base to the hole is $L1$. The distance from the hole to the tip is $L2$. The distance from the base to the top of the hole is $L3$. The width of the base is E . The width of the base is also labeled B .

Side View: Shows the rounded tip with a radius $R1$. The total height is D . The distance from the base to the tip is A . The distance from the base to the tip is also labeled C . The distance from the base to the tip is also labeled $C2$. The distance from the base to the tip is also labeled $C3$. The distance from the base to the tip is also labeled F .

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.61		0.88	0.024		0.035
C	0.46		0.70	0.018		0.028
C2	1.21		1.32	0.048		0.052
C3	2.40		2.72	0.094		0.107
D	8.60		9.70	0.339		0.382
E	9.80		10.4	0.386		0.409
F	6.25		6.85	0.246		0.270
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1	3.45		4.05	0.136		0.159
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
V1		45°			45°	

Technical drawing of a 3D-printed part, showing three views: top, front, and side views. The dimensions are as follows:

- Top View:**
 - Overall width: 520 ± 0.5
 - Overall height: 530 ± 0.5
 - Distance from left edge to center of circular feature: 80
 - Radius of circular feature: $\phi 4.5$
 - Distance from center of circular feature to right edge: 5
 - Distance from top edge to center of circular feature: 3
 - Label: "printing area"
- Front View:**
 - Overall width: 520 ± 0.5
 - Overall height: 530 ± 0.5
 - Distance from left edge to center of circular feature: 80
 - Radius of circular feature: $\phi 4.5$
 - Distance from center of circular feature to right edge: 5
 - Distance from top edge to center of circular feature: 3
 - Label: "printing area"
- Side View:**
 - Overall width: 520 ± 0.5
 - Overall height: 530 ± 0.5
 - Distance from left edge to center of circular feature: 80
 - Radius of circular feature: $\phi 4.5$
 - Distance from center of circular feature to right edge: 5
 - Distance from top edge to center of circular feature: 3
 - Label: "printing area"

PACKAGE	OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON
TO-220A	TUBE	50	1,000	5,000

Technical drawing of a composite pile showing three views: a top view, a front view, and a side view. The top view shows a square pile head with a central circular hole and two rectangular slots. The front view shows the pile head, a concrete core, and three steel reinforcement bars. The side view shows the pile head, a concrete core, and a steel reinforcement bar. Dimensions are labeled with letters A through G and a diameter specification.

Dimensions and labels:

- A**: Pile head width
- B**: Pile head width
- C**: Pile head width
- D**: Concrete core diameter
- E**: Pile head width
- F**: Pile head height
- G**: Pile head height
- H**: Total pile height
- L1**: Concrete core height
- L2**: Steel reinforcement bar length
- L3**: Pile head height
- C2**: Pile head width
- C3**: Pile head width
- $\phi 3.45-3.65\text{mm}$: Steel reinforcement bar diameter

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.70		0.90	0.028		0.035
C	0.45		0.60	0.018		0.024
C2	1.25		1.35	0.049		0.053
C3	2.20		2.60	0.087		0.102
D	8.90		9.90	0.350		0.390
E	9.90		10.3	0.390		0.406
F	6.30		6.90	0.248		0.272
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1	2.70		3.30	0.106		0.130
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116

Technical drawing of a 3D printed part, showing three views: top, front, and side views. The dimensions are specified in millimeters (mm).

Top View Dimensions:

- Overall width: 520 ± 0.5
- Overall height: 530 ± 0.5
- Distance from left edge to center of hole: 5
- Distance from top edge to center of hole: 3
- Distance from right edge to center of hole: 80
- Distance from bottom edge to center of hole: 5.5
- Distance from center of hole to center of hole: $\phi 4.5 \pm 0.05$
- Distance from center of hole to center of hole: $\phi 3 \pm 0.05$
- Printing area: 80

Front View Dimensions:

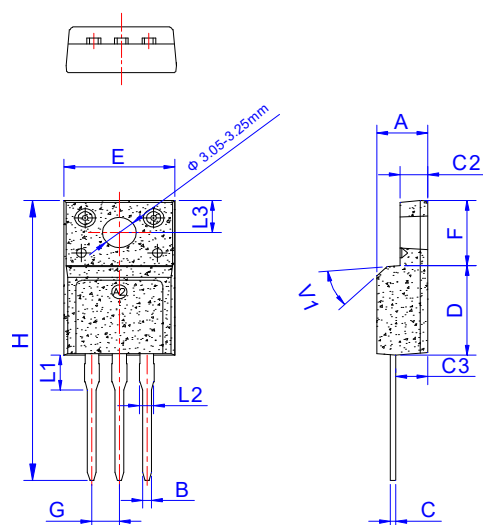
- Overall width: 7 ± 0.2
- Overall height: 33
- Distance from top edge to center of hole: 2.4
- Distance from center of hole to center of hole: 3.8
- Distance from center of hole to center of hole: 0.6
- Distance from bottom edge to center of hole: 18

Side View Dimensions:

- Overall width: 7 ± 0.2
- Overall height: 33
- Distance from top edge to center of hole: 2.4
- Distance from center of hole to center of hole: 3.8
- Distance from center of hole to center of hole: 0.6
- Distance from bottom edge to center of hole: 18

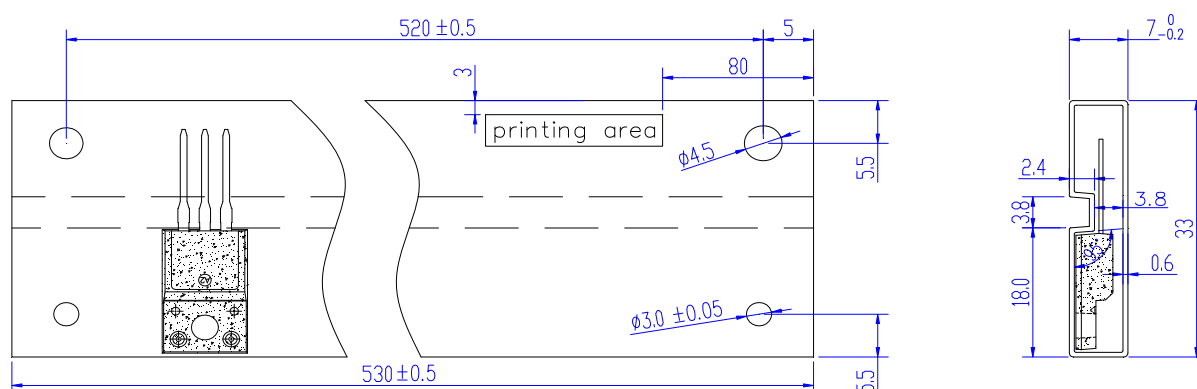
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TO-220C	TUBE	50	1,000	5,000

PACKAGE MECHANICAL DATA



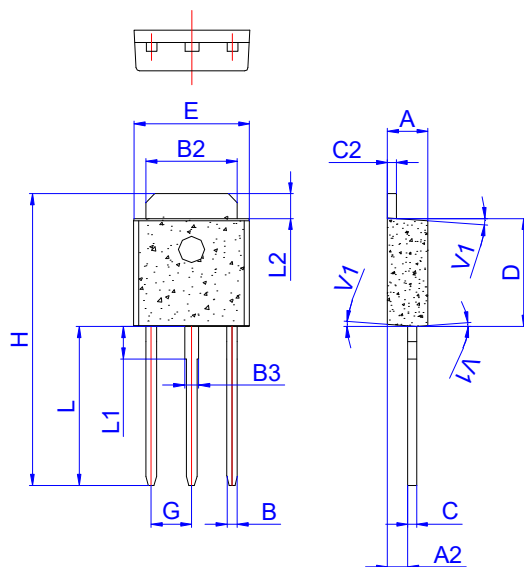
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.50		4.90	0.177		0.193
B	0.74	0.80	0.83	0.029	0.031	0.033
C	0.47		0.65	0.019		0.026
C2	2.45		2.75	0.096		0.108
C3	2.60		3.00	0.102		0.118
D	8.80		9.30	0.346		0.366
E	9.80		10.4	0.386		0.410
F	6.40		6.80	0.252		0.268
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1	3.20		3.80	0.126		0.150
L2	1.14		1.70	0.045		0.067
L3	3.20		3.60	0.126		0.142
V1		45°			45°	

DELIVERY MODE



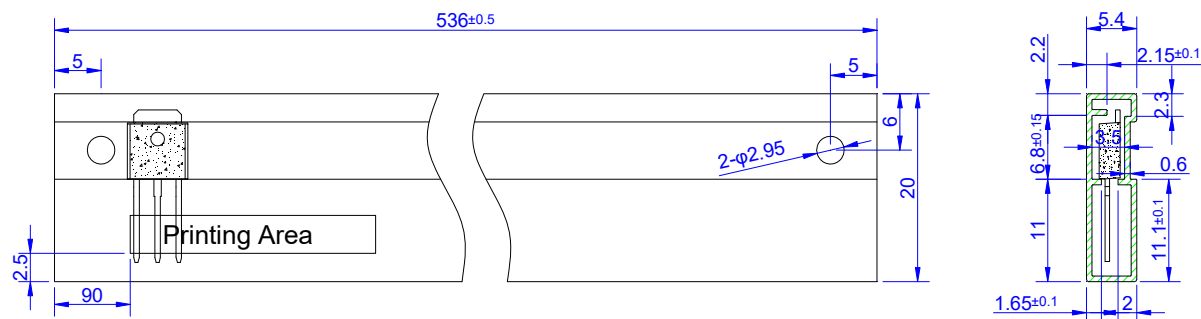
PACKAGE	OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON
TO-220F	TUBE	50	1,000	5,000

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.20		2.40	0.086		0.095
A2	1.00		1.30	0.039		0.051
B	0.50		0.70	0.020		0.028
B2	5.10		5.40	0.200		0.213
B3	0.70		1.00	0.028		0.039
C	0.45		0.62	0.018		0.024
C2	0.48		0.62	0.019		0.024
D	6.00		6.20	0.236		0.244
E	6.40		6.70	0.252		0.264
G	2.20		2.40	0.087		0.094
H	16.0		17.0	0.630		0.669
L	8.90		9.40	0.350		0.370
L1	1.80		2.20	0.071		0.087
L2	1.25		1.55	0.049		0.061
V1		4°			4°	

DELIVERY MODE



PACKAGE	OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON
TO-251	TUBE	80	4,000	20,000



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