

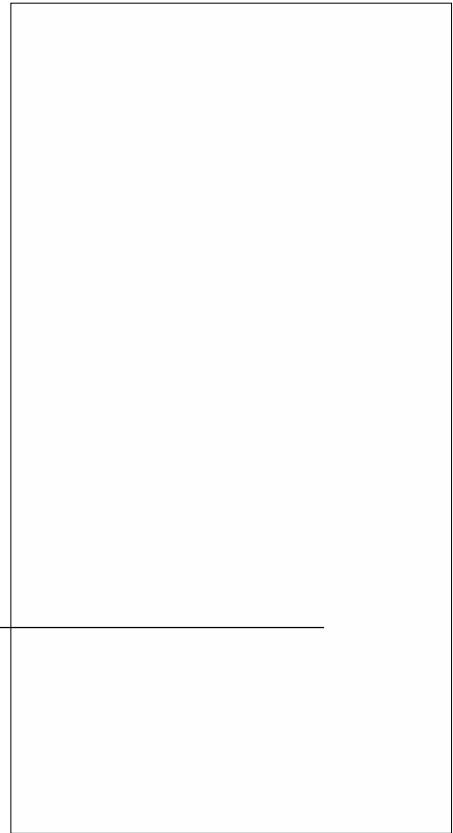


## ACJT1035-10F 10A TRIAC

Rev.A.1.0

### DESCRIPTION:

The ACJT1035-10F 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 ACJT1035-10F embeds a TVS structure to absorb the inductive turn-off energy such as those described in the IEC 61000-4-5 standards. By using an external plastic package, ACJT1035-10F provides a rated insulation voltage of 2000 VRMS. Package TO-220F is RoHS compliant.



### MAIN FEATURES

### 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 ( $T_j=25^\circ\text{C}$ )	$V_{DRM}$	1000	V
Repetitive peak reverse voltage ( $T_j=25^\circ\text{C}$ )	$V_{RRM}$	1000	V
RMS on-state current ( $T_c = 92^\circ\text{C}$ )	$I_{T(RMS)}$	10	A
Non repetitive surge peak on-state current (full cycle , $t_p=20\text{ms}$ , $T_j=25^\circ\text{C}$ )	$I_{TSM}$	100	

Average gate power dissipation ( $T_j=125$ )	$P_{G(AV)}$	0.5	W
Peak gate power	$P_{GM}$	10	W
Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG.7)	$V_{pp}$	4.5	kV

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

Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D=12V$ $R_L=33$	- -	MAX.	35	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.	50	mA
				70	
$I_H$	$I_T=500mA$		MAX.	50	mA
dV/dt	$V_D=670V$ Gate Open $T_j=125$		MIN.	800	V/ $\mu s$
(dI/dt) <sub>c</sub>	(dV/dt) <sub>c</sub> =20V/ $\mu s$ , $T_j=125$		MIN.	15	A/ms
$t_{on}$	$I_G=40mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	5	$\mu s$
$t_{off}$				70	
$V_{CL}$	$I_{CL}=0.1mA$ $t_p=1ms$		MIN.	1050	V

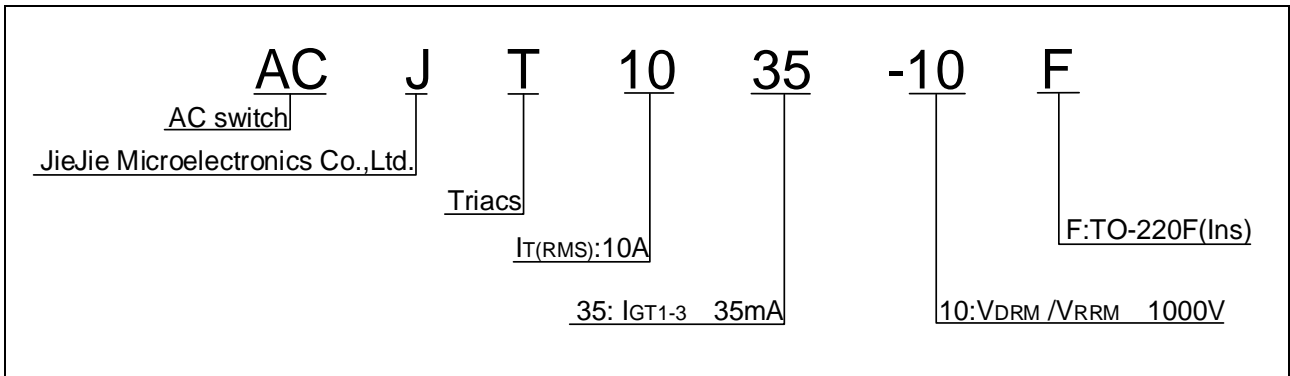
**STATIC CHARACTERISTICS**

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=14A$ $t_p=380\mu s$	$T_j=25$	1.4	V
$V_{TO}$	Threshold voltage	$T_j=125$	0.78	V
$R_D$	Dynamic resistance	$T_j=125$	29	m
$I_{DRM}$	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	10	$\mu A$
$I_{RRM}$		$T_j=125$	1	mA

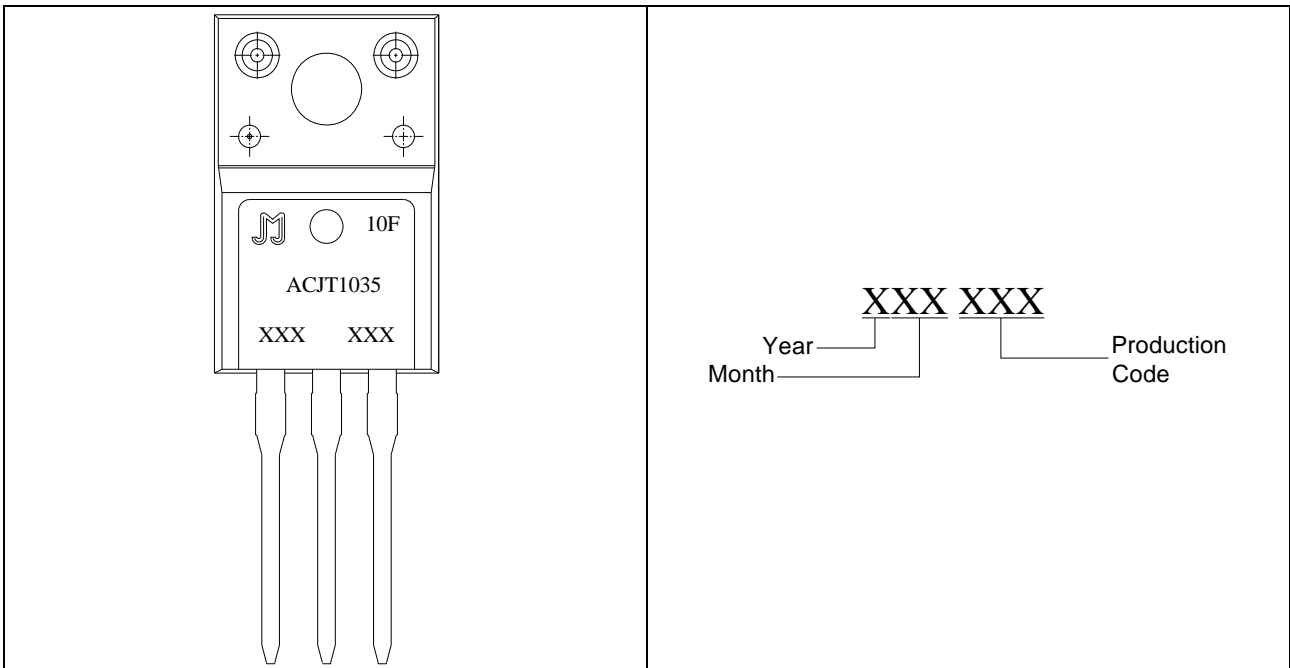
**THERMAL RESISTANCES**

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	2.5	/W
$R_{th(j-a)}$	junction to ambient (AC)	60	/W

ORDERING INFORMATION



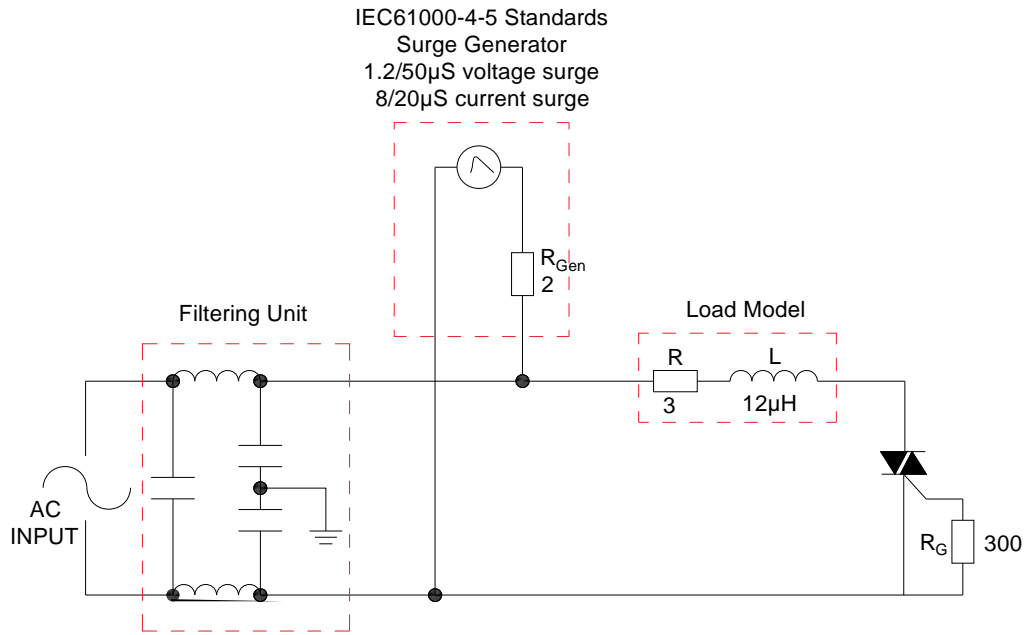
MARKING



**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



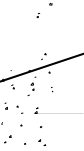
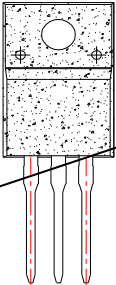
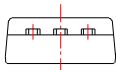
**ORDERING INFORMATION**

<b>Order code</b>	<b>Voltage V<sub>DRM</sub>/V<sub>RRM</sub> (V)</b>	<b>IGT(mA)</b>	<b>Package</b>	<b>Base qty. (pcs)</b>	<b>Delivery mode</b>
<b>ACJT1035-10F</b>	<b>1000</b>	<b>35</b>	<b>TO-220F(Ins)</b>	<b>50</b>	<b>Tube</b>

**Document Revision History**


<b>Date</b>	<b>Revision</b>	<b>Changes</b>
Apr.13, 2023	A.1.0	Last updated

PACKAGE MECHANICAL DATA



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