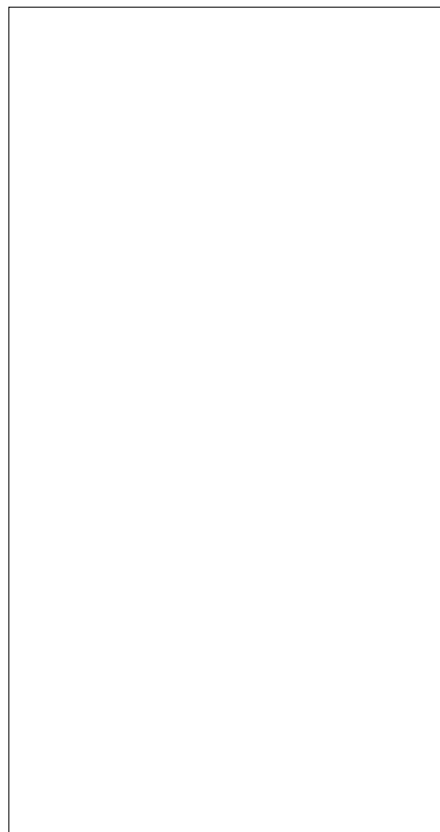


**ACJT1010-10F 10A TRIAC**

Rev.A.1.1

The ACJT1010-10F 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 ACJT1010-10F 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, ACJT1010-10F provides a rated insulation voltage of 2000 VRMS. Package TO-220F is RoHS compliant.



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 ($T_C \leq 92^\circ\text{C}$)	$I_{T(RMS)}$	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	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		110	

I^2t value for fusing ($t_p=10\text{ms}$, T

A	$T_j=125\text{ }^{\circ}\text{C}$	$P_{G(AV)}$	0.5	W
Peak gate power		P_{GM}	10	W
Peak pulse voltage ($T_j=25\text{ }^{\circ}\text{C}$; see Fig.7)		V_{pp}	4.5	kV

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

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12\text{V}$ $R_L=33\Omega$	- -	MAX.	10	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125\text{ }^{\circ}\text{C}$ $R_L=3.3\text{k}\Omega$	- -	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$		MAX.	35	mA
dV/dt	$V=-670\text{V}$ Gate Open $T_j=125\text{ }^{\circ}\text{C}$		MIN.	300	V/ μs
$(dI/dt)_c$	$(dV/dt)_c=10\text{V}/\mu\text{s}$, T_E	See Fig. 8			

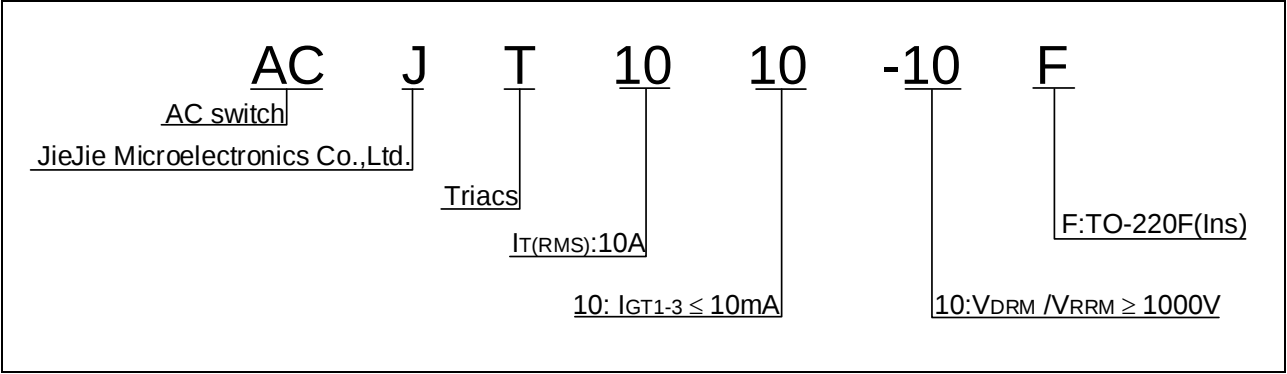


FIG.1: Maximum power dissipation versus RMS on-state current

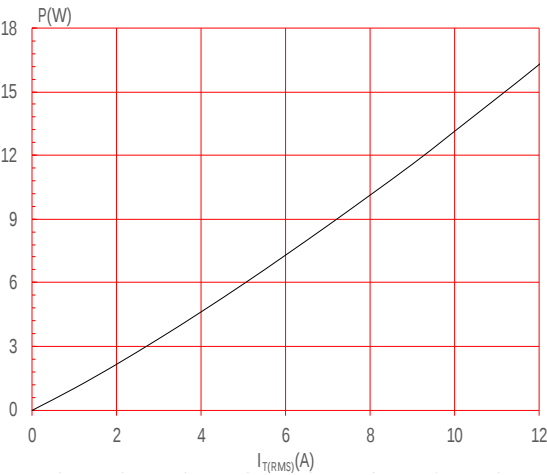


FIG.3: Surge peak on-state current versus number of cycles

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

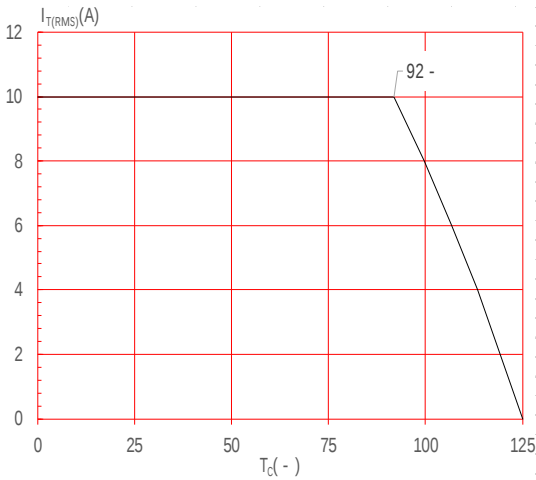


FIG.4: On-state characteristics

Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	
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