



ACJT08A-1000CW 8A TRIAC

Rev.A.1.1

DESCRIPTION:

The ACJT08A-1000CW is a general purpose AC switch capable of switching resistive, inductive and capacitive loads. It is designed to switch 8A of 250V AC RMS, 250V VRMS, 50/60Hz. It is available in TO-220A package.



MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage temperature	$T_s$	-40-150	
Operating temperature	$T_j$	-40-125	
Repetitive peak reverse voltage ( $f = 25$ Hz)	$V_{DRM}$	1000	V
Repetitive peak reverse voltage ( $f = 25$ Hz)	$V_{RRM}$	1000	V
RMS on-state current ( $V_{c} = 97$ V)	$I_{TRMS}$	8	A
Non-repetitive peak on-state current (pulse width, $t_p = 20$ ms, $f = 25$ Hz)	$I_{TSM}$	80	A
Non-repetitive peak on-state current (pulse width, $t_p = 16.6$ ms, $f = 25$ Hz)		88	

Average gate power (T <sub>j</sub> = 125 °C)	P <sub>GM</sub>	0.5	W
Peak gate power	P <sub>GM</sub>	10	W
Peak voltage (T <sub>j</sub> = 25 °C; R <sub>θ(j-c)</sub> = 2.5 °C/W; F <sub>L</sub> = 1 kHz)	V <sub>p</sub>	2.75	V

ELECTRICAL CHARACTERISTICS (T<sub>j</sub> = 25 °C)

Symbol	Test Condition	Quadrant	Value	Unit	
I <sub>GT</sub>	V <sub>D</sub> = 12V R <sub>L</sub> = 33 Ω	- -	MAX .	35	A
V <sub>GT</sub>		- -	MAX .	1	V
V <sub>GD</sub>	V <sub>D</sub> = V <sub>DRM</sub> T <sub>j</sub> = 125 °C R <sub>L</sub> = 3.3 Ω	- -	MIN	0.2	V
I <sub>L</sub>	I <sub>G</sub> = 1.2 I <sub>GT</sub>	-	MAX .	35	A
				55	
I <sub>H</sub>	I <sub>T</sub> = 100A		MAX .	30	A
dV/dt	V <sub>D</sub> = 670V Gate Open T <sub>j</sub> = 125 °C		MIN	1600	V/μs
(dI/dt) <sub>c</sub>	(dV/dt) <sub>c</sub> = 10V/μs, T <sub>j</sub> = 25 °C		MIN.	10	A/n
t <sub>b</sub>	I <sub>G</sub> = 40A I <sub>A</sub> = 20A I <sub>R</sub> = 20A T <sub>j</sub> = 25 °C		TYP .	5	μs
t <sub>bf</sub>				70	
V <sub>CL</sub>	I <sub>CL</sub> = 0.1A t <sub>p</sub> = 1ns		MIN.	1050	V

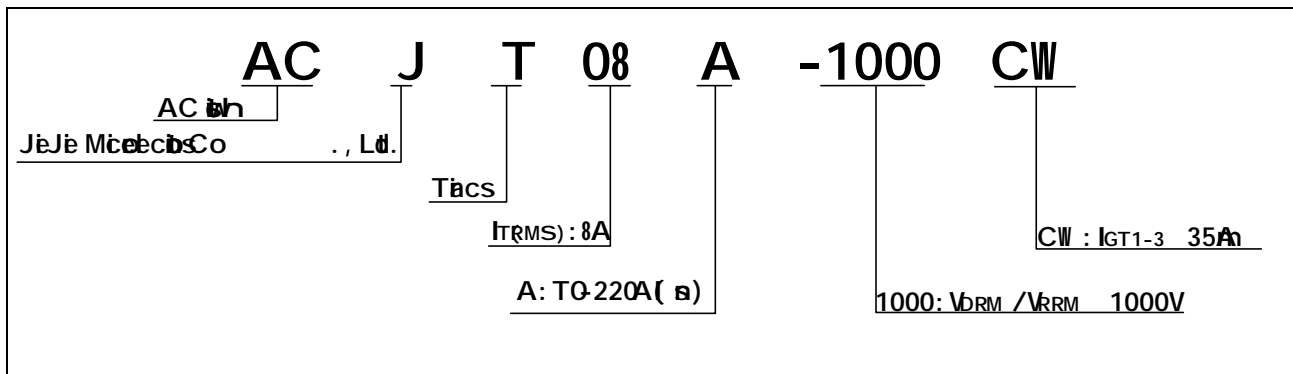
STATIC CHARACTERISTICS

Symbol	Parameter	Value(MAX.)	Unit	
V <sub>TM</sub>	I <sub>TM</sub> = 10A t <sub>p</sub> = 380μs T <sub>j</sub> = 25 °C	1.45	V	
V <sub>TO</sub>	T <sub>h</sub> T <sub>j</sub> = 25 °C	0.78	V	
R <sub>D</sub>	Dimension T <sub>j</sub> = 25 °C	48	m	
I <sub>DRM</sub>	V <sub>D</sub> = V <sub>DRM</sub> V <sub>R</sub> = V <sub>RRM</sub>	T <sub>j</sub> = 25 °C	8	μA
I <sub>RRM</sub>		T <sub>j</sub> = 25 °C	0.8	A

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
R <sub>th(c)</sub>	junction to case (AC)	2.5	/W
R <sub>th(a)</sub>	junction to air (AC)	60	/W

ORDERING INFORMATION



MARKING

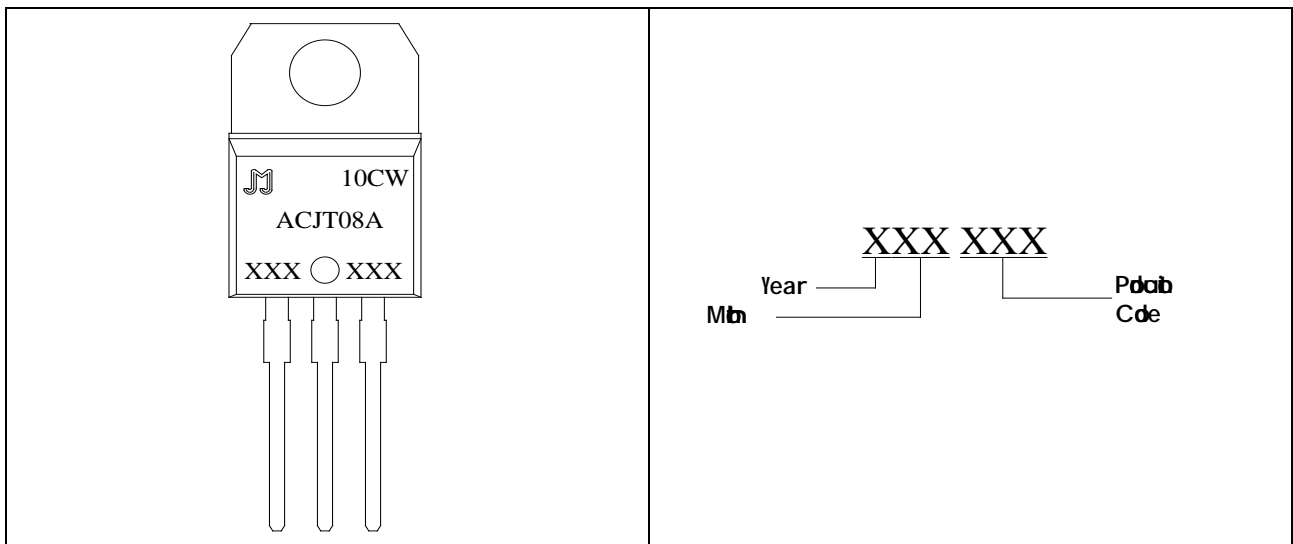


FIG.1: Main power RMS  
at 50°C

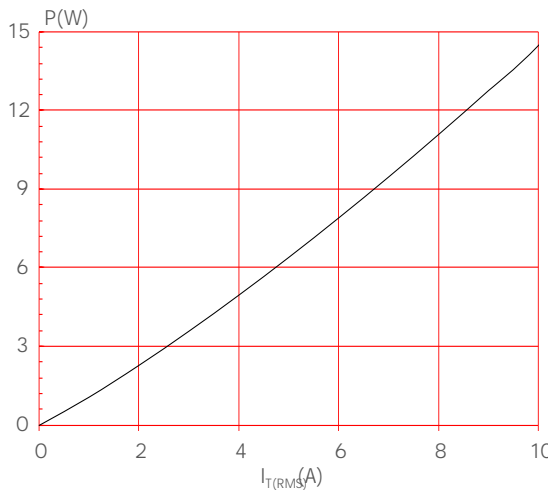
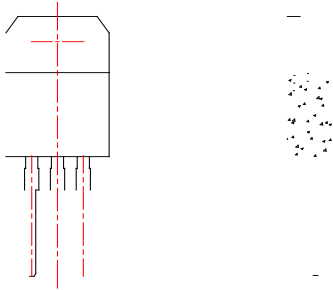



FIG.2: RMS power at 50°C  
at 100%





PACKAGE MECHANICAL DATA



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