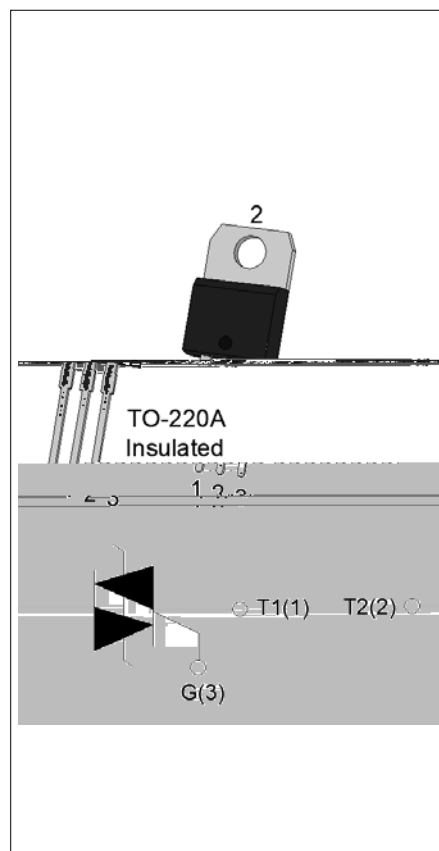


DESCRIPTION:

The ACJT405-10A 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 ACJT405-10A 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 internal ceramic pad, ACJT405-10A provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	4	A
V_{DRM}/V_{RRM}	1000	V
$I_{GT} / /$	5/5/5	mA

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 ($T_c=106^\circ\text{C}$)	$I_{T(RMS)}$	4	A
Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	40	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		44	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	8	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$)	di/dt	50	$\text{A}/\mu\text{s}$
Peak gate current ($t_p=20\mu\text{s}$, $T_j=125^\circ\text{C}$)	I_{GM}	4	A

Average gate power dissipation ($T_j=125\text{ }^{\circ}\text{C}$)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage ($T_j=25\text{ }^{\circ}\text{C}$; non-repetitive, off-state; FIG.7)	V_{pp}	3	kV

ELECTRICAL CHARACTERISTICS (unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V\ R_L=33\Omega$	- -	MAX.	5	mA
V_{GT}		- -	MAX.	1	V

$V_{DD}=3.3V$ (3) TJ /C2_2 1 Tf 0 T52 T6 0 8. Tw 8.04 5e f 5648Q4.88Span <</MCIP <</MCID 4J /C2_2 1208.0452 T6 0 8. /T7>88 .480 f 56.88 60

ORDERING INFORMATION

<u>AC</u>	<u>J</u>	<u>T</u>	<u>4</u>	<u>05</u>	<u>-10</u>	<u>A</u>
AC switch		Triacs				A:TO-220A(Ins)
JieJie Microelectronics Co., Ltd.		<u>IT(RMS):4A</u>				
			<u>05: lGT1-3 5mA</u>			
					<u>10:VDRM /VRRM 1000V</u>	

MARKING

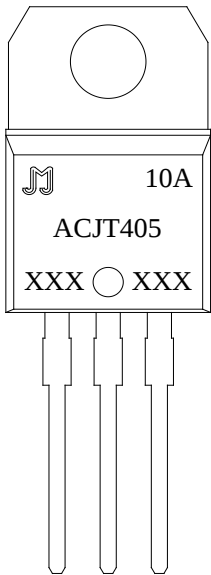


FIG.1: Maximum power dissipation versus RMS on-state current

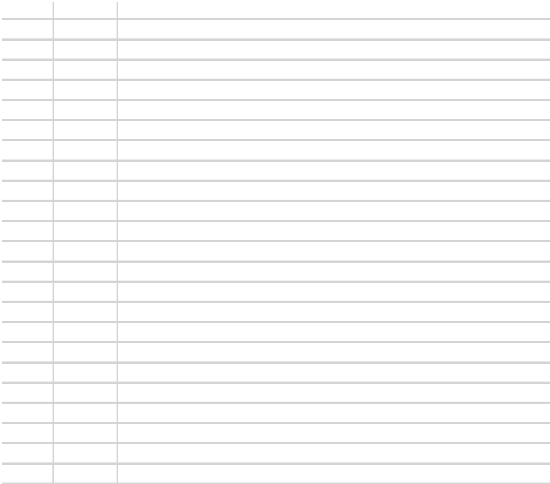


FIG.2: RMS on-state current versus case temperature

ORDERING INFORMATION

Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
ACJT405-10A	1000	5	TO-220A(Ins)	50	Tube

Document Revision History

Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated
Oct.13, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

PACKAGE MECHANICAL DATA

