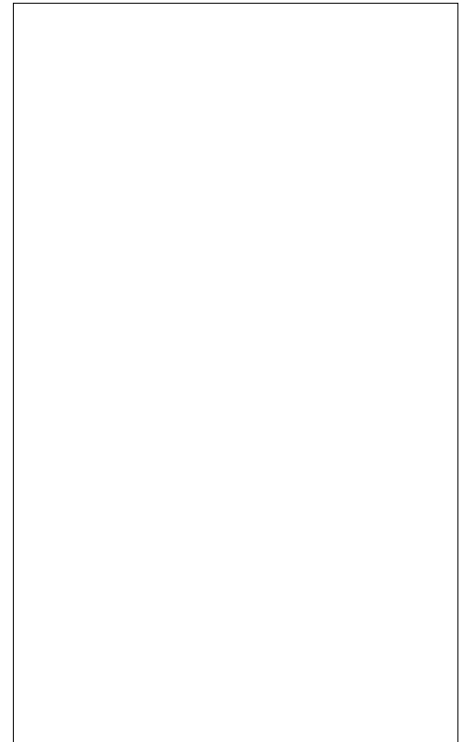




## ACJT405-8C 4A TRIAC

Rev.A.1.0

The ACJT405-8C 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 ACJT405-8C embeds a TVS structure to absorb the inductive turn-off energy such as those described in the IEC 61000-4-5 standards. Package TO-220C 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 ( $T_j=25$ )	$V_{DRM}$	800	V
Repetitive peak reverse voltage ( $T_j=25$ )	$V_{RRM}$	800	V
RMS on-state current ( $T_c$ 113 )	$I_{T(RMS)}$	4	A
Non repetitive surge peak on-state current (full cycle , $t_p=20ms$ , $T_j=25$ )			

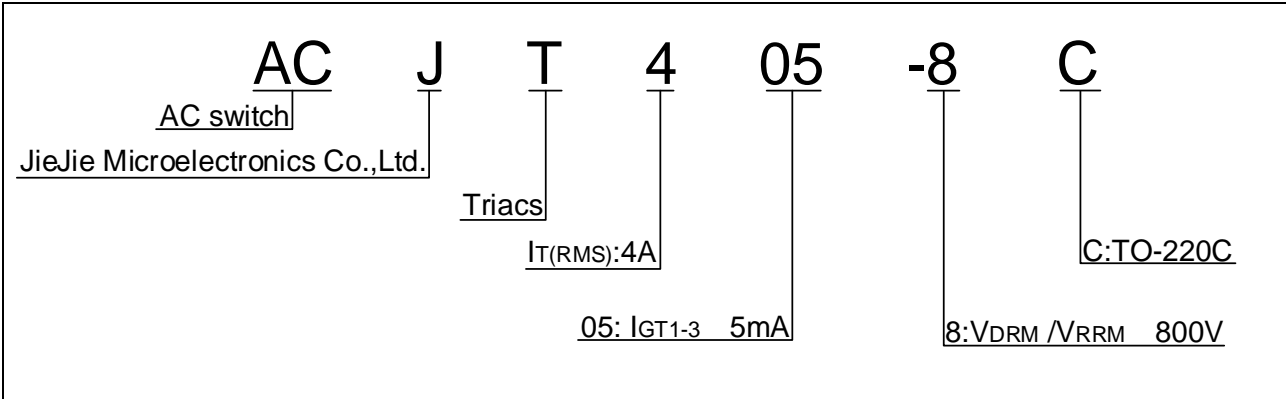
Peak gate power	$P_{GM}$	10	W
Peak pulse voltage ( $T_j=25$ ; non-repetitive,off-state;FIG.7)	$V_{pp}$	3	kV

(T<sub>j</sub>=25 unless otherwise specified)

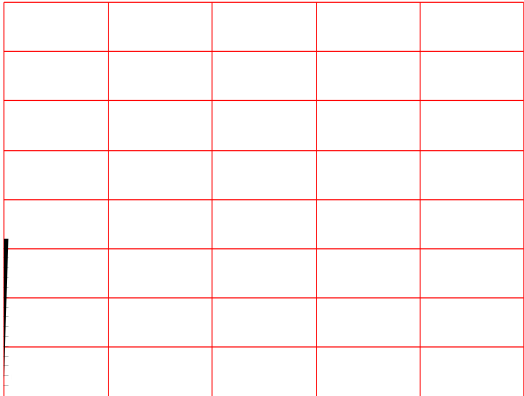
Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D=12V R_L=33$	- -	MAX.	5	mA
$V_{GT}$		- -	MAX.	1	V
$V_{GD}$	$V_D=V_{DRM} T_j=125$ $R_L=3.3K$	- -	MIN.	0.2	V
$I_L$	$I_G=1.2I_{GT}$	-	MAX.	15	mA
				20	
$I_H$	$I_T=100mA$		MAX.	10	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	200	V s
(dI/dt) <sub>c</sub>	(dV/dt) <sub>c</sub> =1 $T_j=125$		MIN.	1.2	A/ms
$t_{on}$	$I_G=10mA I_A=200mA I_R=20mA$ $T_j=25$		TYP.	2	s
$t_{off}$				20	
$V_{CL}$	$I_{CL}=0.1mA t_p=1ms$		MIN.	850	V

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=5.6A t_p=380 s$	$T_j=25$	1.55	V
$V_{TO}$	Threshold voltage	$T_j=125$	0.73	V
$R_D$	Dynamic resistance	$T_j=125$	171	
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	5	A
$I_{RRM}$		$T_j=125$	0.25	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	2	/W
$R_{th(j-a)}$	junction to ambient (AC)	60	/W

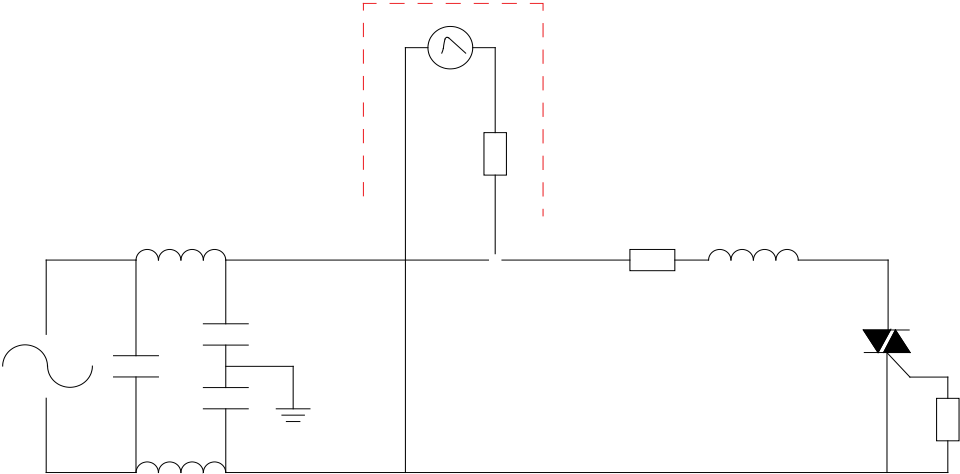


**FIG.1** Maximum power dissipation versus RMS on-state current



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

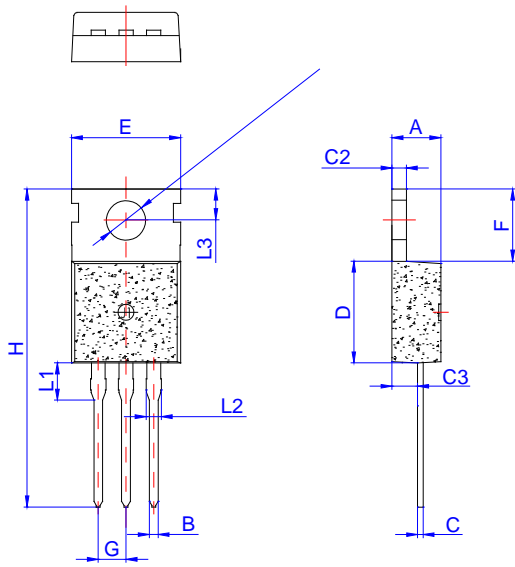
FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



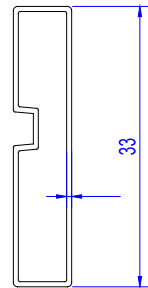
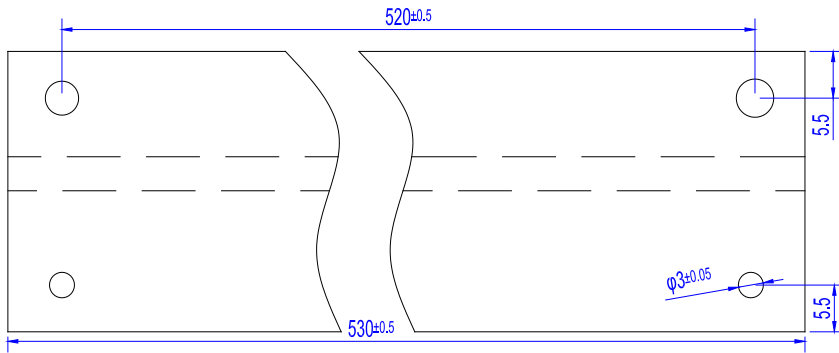
Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
ACJT405-8C	800	5	TO-220C	50	Tube

#### Document Revision History

Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated



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



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