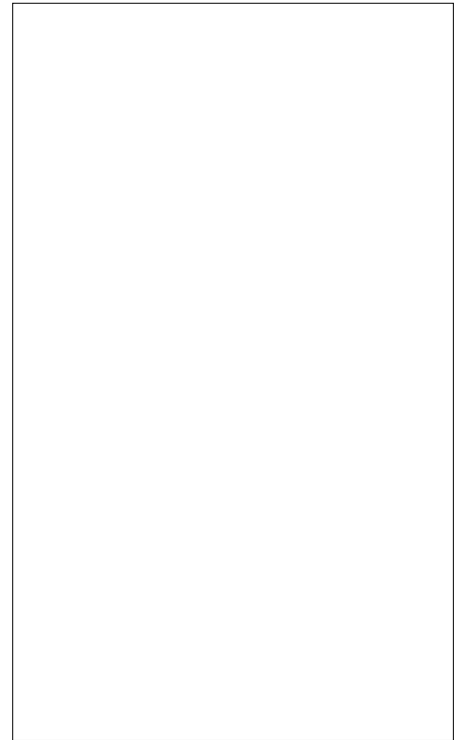




## ACJT610-8C 6A TRIAC

Rev.A.1.1

The ACJT610-8C 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 ACJT610-8C 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	

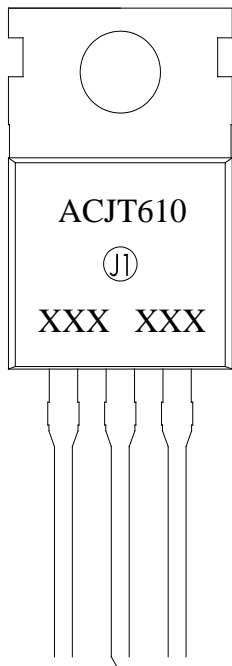
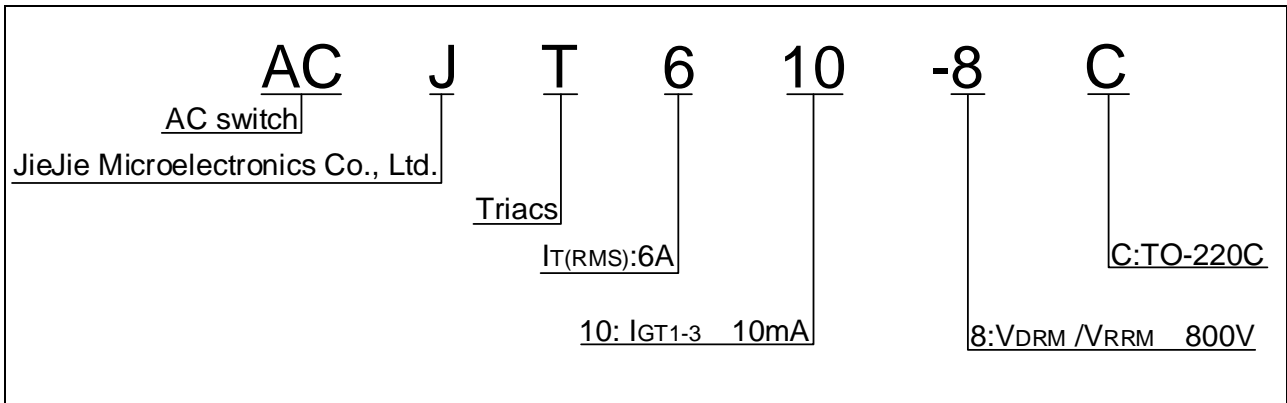
Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG.7)	$V_{pp}$	3.5	kV
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(T<sub>j</sub>=25 unless otherwise specified)

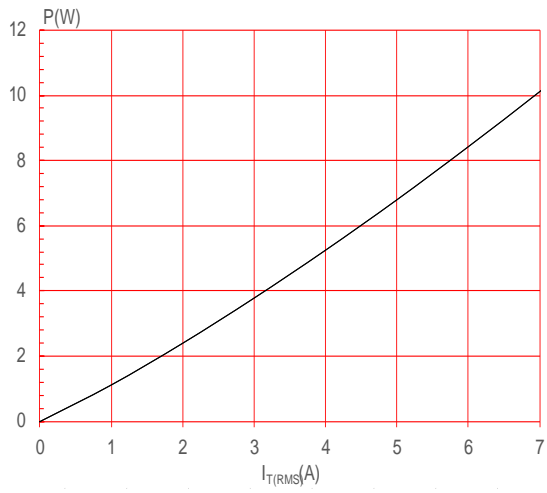
Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D=12V R_L=33$	- -	MAX.	10	mA
$V_{GT}$		- -	MAX.	1	V
$V_{GD}$	$V_D=V_{DRM} T_j=125$ $R_L=3.3k$	- -	MIN.	0.2	V
$I_L$	$I_G=1.2I_{GT}$	-	MAX.	20	mA
				35	
$I_H$	$I_T=100mA$		MAX.	20	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	500	V/ $\mu s$
(dI/dt) <sub>c</sub>	(dV/dt) <sub>c</sub> =10V/ $\mu s$ , $T_j=125$		MIN.	3	A/ms
$t_{on}$	$I_G=20mA I_A=200mA I_R=20mA$ $T_j=25$		TYP.	2.5	$\mu s$
$t_{off}$				25	
$V_{CL}$	$I_{CL}=0.1mA t_p=1ms$		MIN.	850	V

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=8.5A t_p=380\mu s$	$T_j=25$	1.5	V
$V_{TO}$	Threshold voltage	$T_j=125$	0.82	V
$R_D$	Dynamic resistance	$T_j=125$	64	m
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	5	$\mu A$
$I_{RRM}$		$T_j=125$	0.3	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	1.7	$\text{W}$
$R_{th(j-a)}$	junction to ambient (AC)	60	$\text{W}$



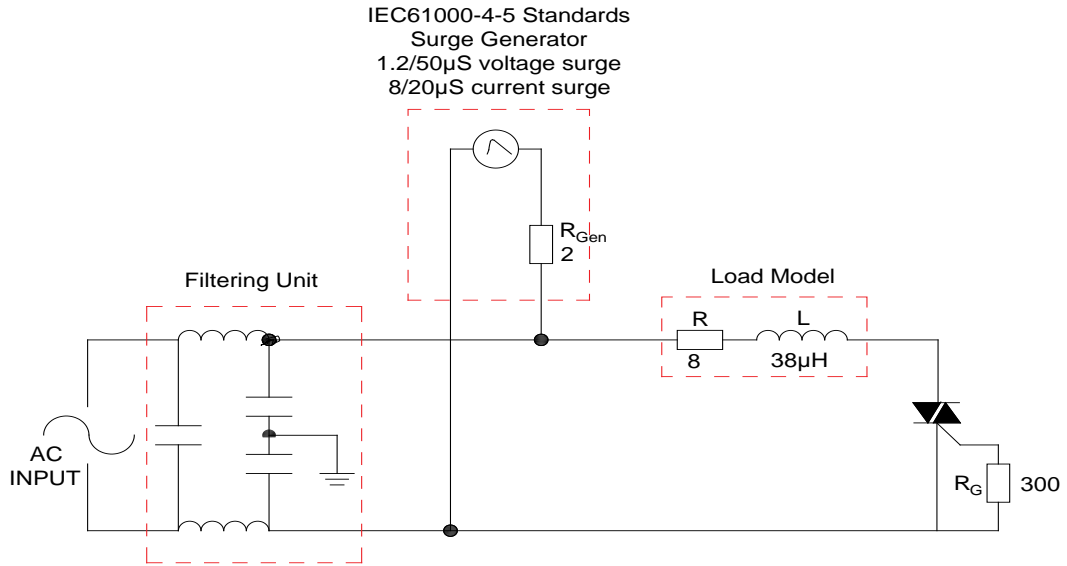
**FIG.1:** Maximum power dissipation versus RMS on-state current



**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
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