

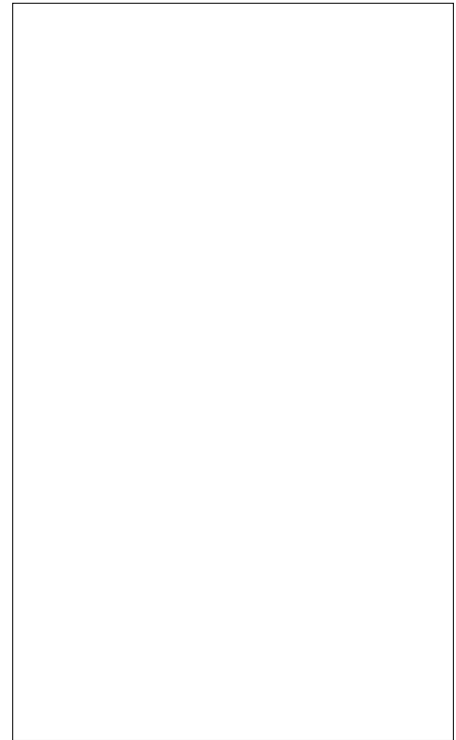


ACJT210-8H 2A TRIAC

Rev.A.1.0

DESCRIPTION:

The ACJT210-8H 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 ACJT210-8H embeds a TVS structure to absorb the inductive turn-off energy such as those described in the IEC 61000-4-5 standards. Package TO-251 is RoHS compliant.



MAIN FEATURES

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}	800	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	800	V
RMS on-state current ($T_c=107^\circ\text{C}$)	$I_{T(RMS)}$	2	A

HI-EMO126204225.6Tm6Tm102Tm12

Peak gate power	P_{GM}	10	W
Peak pulse voltage ($T_j=25$; non-repetitive,off-state;FIG.7)	V_{pp}	4.5	kV

ELECTRICAL CHARACTERISTICS ($T_j=25$ 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.	25	mA
				35	
I_H	$I_T=100mA$		MAX.	15	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	900	V/s
$(dI/dt)_c$	$(dV/dt)_c=1$ $T_j=125$		MIN.	3	A/ms
t_{on}	$I_G=20mA I_A=200mA I_R=20mA$ $T_j=25$		TYP.	2.5	s
t_{off}				25	
V_{CL}	$I_{CL}=0.1mA t_p=1ms$		MIN.	850	V

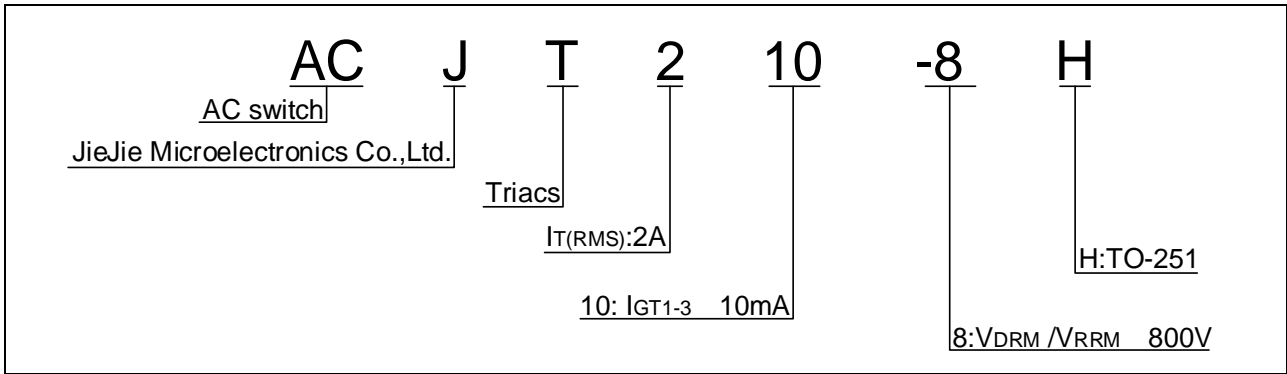
STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=3A t_p=380$ s	$T_j=25$	1.5	V
V_{TO}	Threshold voltage	$T_j=125$	0.79	V
R_D	Dynamic resistance	$T_j=125$	242	
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	5	A
I_{RRM}		$T_j=125$	0.2	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	6.5	$^{\circ}W$
$R_{th(j-a)}$	junction to ambient (AC)	145	$^{\circ}W$

ORDERING INFORMATION



MARKING

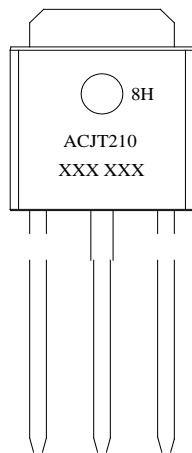


FIG.1 Maximum power dissipation versus RMS on-state current

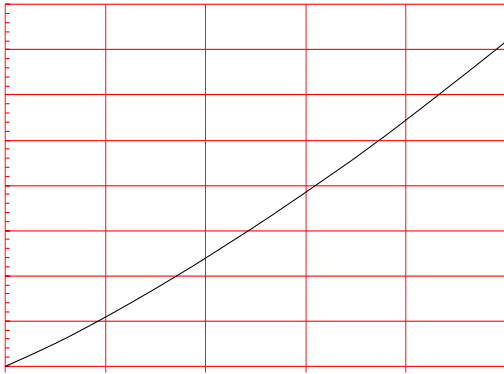


FIG.2: RMS on-state current versus case temperature

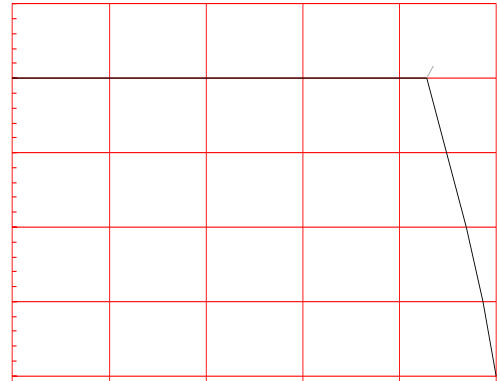


FIG.3: Surge peak on-state current versus number of cycles

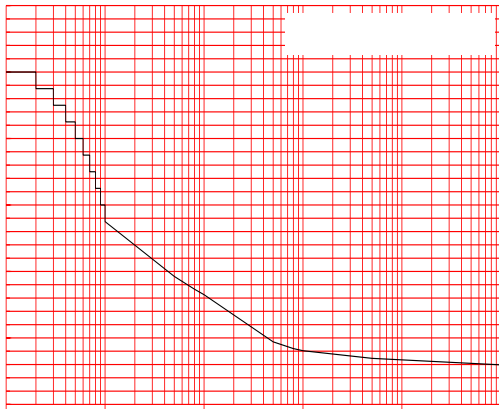


FIG.4: On-state characteristics

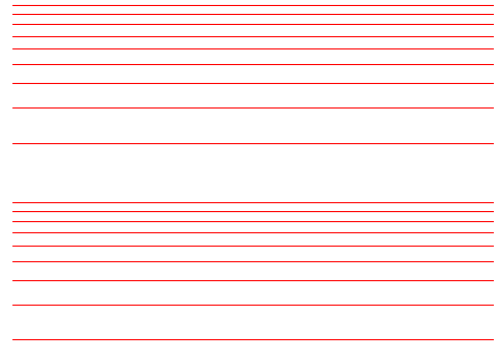
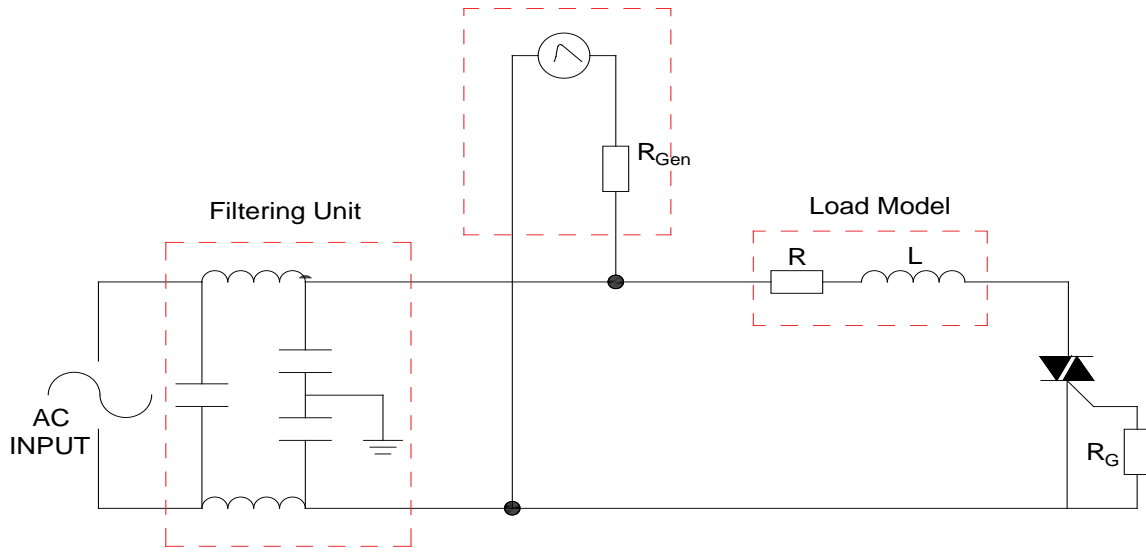


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards

IEC61000-4-5 Standards
Surge Generator



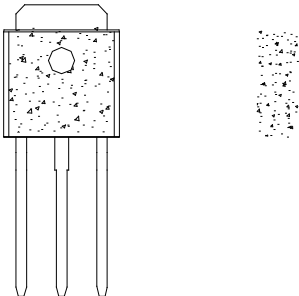
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
ACJT210-8H	800	10	TO-251	80	Tube

Document Revision History

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

PACKAGE MECHANICAL DATA



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