

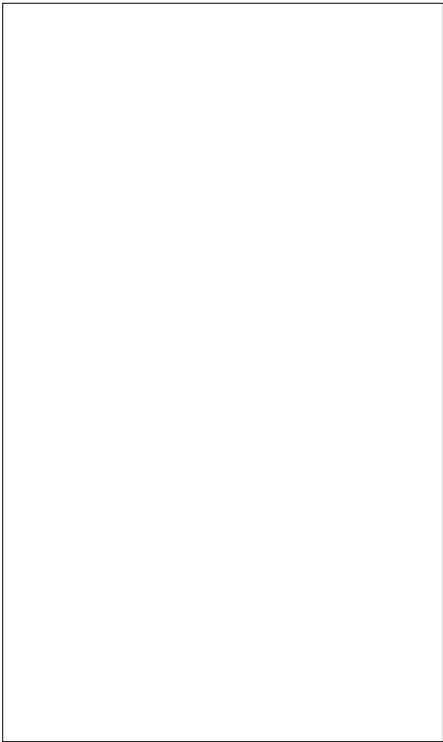


ACJT1235-8C 12A TRIAC

Rev.A.1.1

DESCRIPTION:

The ACJT1235-8C 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 ACJT1235-8C 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.



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) V_{DRM} =2j EIMC /P <</MCID 26 >stfDGe r6.1 ftD0Td (V)

Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{pp}	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.	35	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	D V_{DRM} L	- -	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$			70	
I_H	$I_T=500mA$		MAX.	45	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	1000	V/ μs
(dI/dt) _c	(dV/dt) _c =20V/ μs , $T_j=125$		MIN.	15	A/ms
t_{on}	$I_G=40mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	3	μs
t_{off}				30	
V_{CL}	$I_{CL}=0.1mA$ $t_p=1ms$		MIN.	850	V

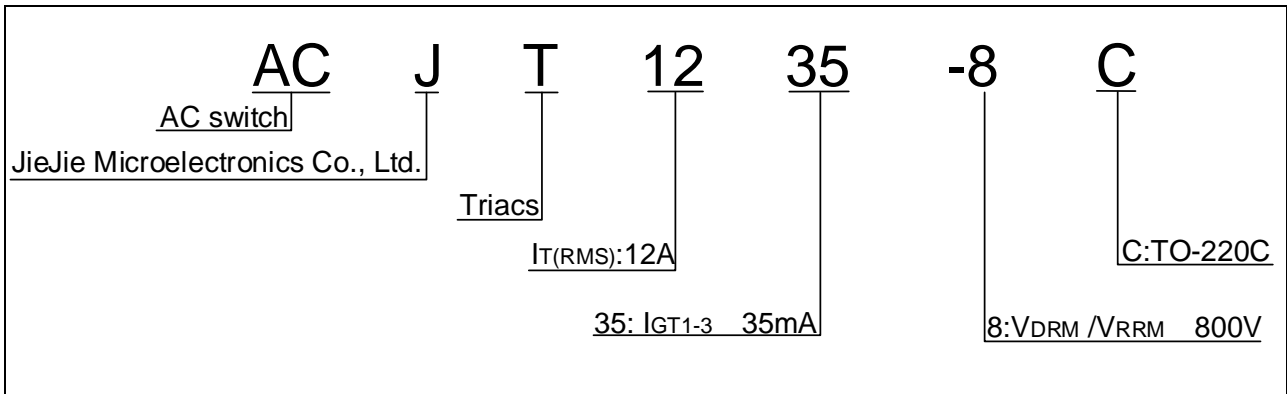
STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=17A$ $t_p=380\mu s$	$T_j=25$	1.45	V
V_{TO}	Threshold voltage	$T_j=125$	0.8	V
R_D	Dynamic resistance	$T_j=125$	34	m
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	μA
I_{RRM}		$T_j=125$	0.5	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	1.3	$^{\circ}W$
$R_{th(j-a)}$	junction to ambient (AC)	60	$^{\circ}W$

ORDERING INFORMATION



MARKING

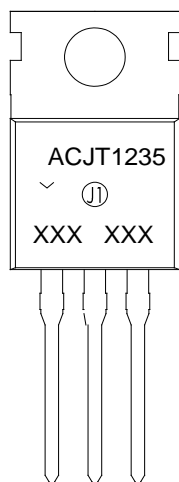


FIG.1: Maximum power dissipation versus RMS on-state current

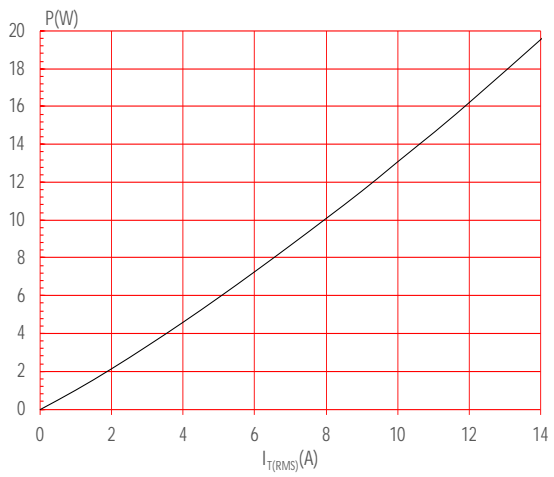


FIG.2: RMS on-state current versus case temperature

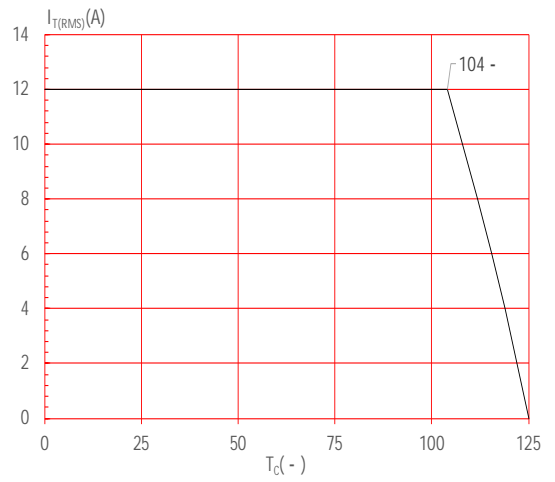
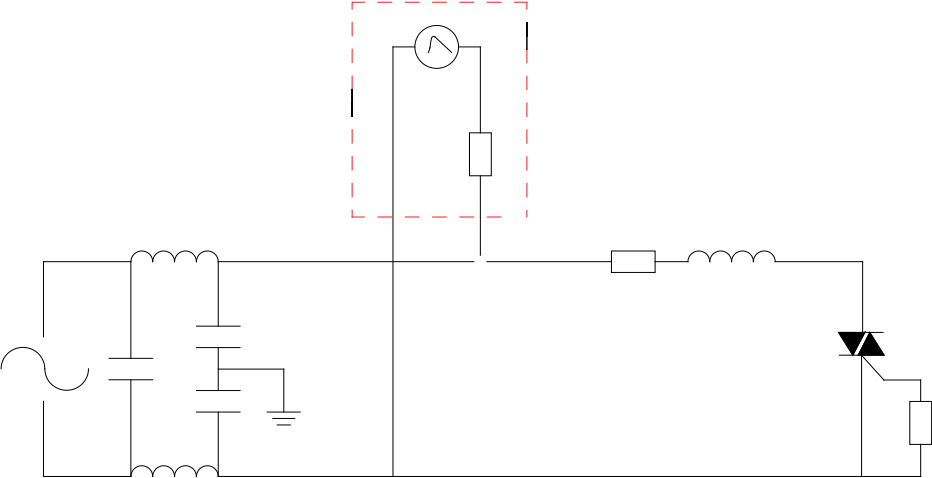


FIG.3: Surge peak on

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



ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
------------	----------------------------------	---------	---------	--------------------	---------------

AA

