

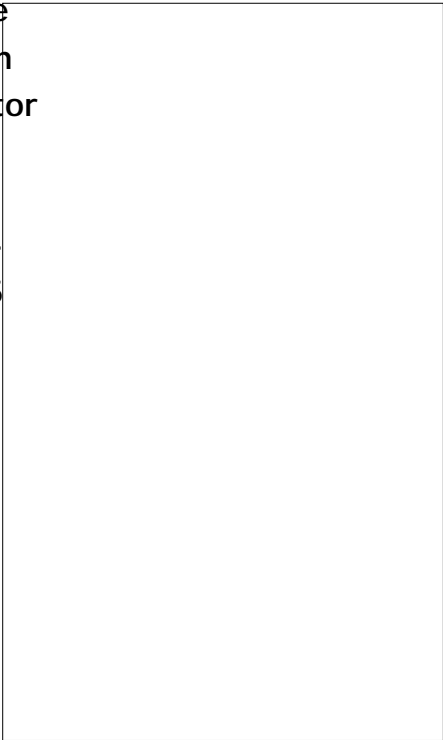


ACJT1210-10E 12A TRIAC

Rev.A.1.1

DESCRIPTION:

The ACJT121010E 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 ACJT10-10E embeds a TVS structure to absorb the inductive turn-energy such as those described in the IEC 61000-4-5 standards. Package TO-263 is RoHS compliant



MAIN FEATURES

MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage temperature range	T _{stg}	-40~150	
Junction temperature range	T _j	-40~125	
Peak off-state voltage (f=25 Hz)	V _{DRM}	1000	V
Peak reverse voltage (f=25 Hz)	V _{RRM}	1000	V
RMS current (T=104 °C)	I _{T(RMS)}	12	A
Non repetitive surge peak on-state current (full cycle, t _p ≤20ms, f=25 Hz)	I _{TSM}	120	A
Non repetitive surge peak on-state current (full cycle, t _p ≤16.6ms, T _j ≤125 °C)			

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Peak pulse voltage ($T_j=25$; nonrepetitive, of state; FIG8)	V_{pp}	4.5	kV
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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
				30	
I_H	$I_T = 500mA$		MAX.	20	mA
dV/dt	$V_D = 670V$ Gate Open $T_j = 125$		MIN.	300	V/ μs
$(dI/dt)_c$	$(dV/dt)_c \neq 0V/\mu s$, $T_j = 125$		MIN.	3	A/ms
t_{on}	$I_G = 20mA$ $I_A = 200mA$ $I_R = 20mA$ $T_j = 25$		TYP.	4	μs
t_{off}				50	
V_{CL}	$I_{CL} = 0.1mA$ $t = 1ms$		MIN.	1050	V

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM} = 17A$ $t_p = 38\mu s$	$T_j = 25$	1.45	V
V_{TO}	Threshold voltage	$T_j = 125$	0.8	V
R_D	Dynamic resistance	$T_j = 125$	34	m
I_{DRM}	$V_D = V_{DRM}$ $V_R = V_{RRM}$	$T_j = 25$	10	μA
I_{RRM}		$T_j = 125$	1	mA

THERMAL RESISTANCES

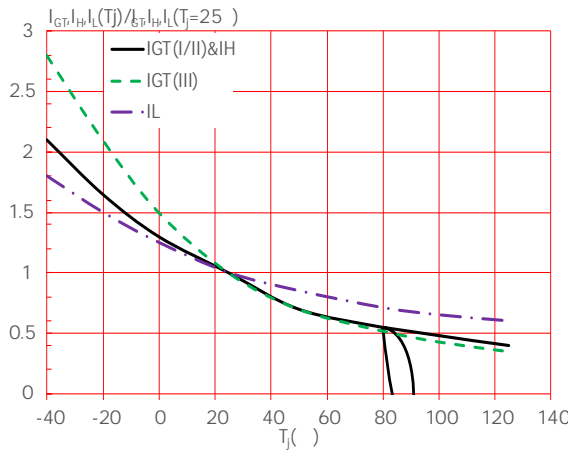
Symbol	Parameter	Value	Unit
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ACJT1210-10E

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

FIG.2:

FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature




ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
ACJT1210-10E	1000	10	TO-263	50	Tube
ACJT1210-10E-TR				800	Tape & Reel

A 977J7 >>BDC 0.0T0.6 0.6.88 3 46481 0.48.481 re f 56.88 3 40

ACJT1210-10E

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