



ACJT825-10H 8A TRIAC

Rev.A.1.1

DESCRIPTION:

The ACJT825-10H 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 ACJT825-10H 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}	1000	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	1000	V
RMS on-state current ($T_c 093^\circ\text{C}$)	$I_{T(RMS)}$	8	A
Non repetitive surge peak on-state current (full cycle , $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$) Non repetitive surge peak on-state current (full cycle , t	I_{TSM}	80	A

Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{pp}	2.5	kV
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ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33\Omega$	- -	MAX.	25	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k\Omega$	- -	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	-	MAX.	35	mA
				55	
I_H	$I_T=100mA$		MAX.	30	mA
dV/dt	$V_D=670V$ Gate Open $T_j=125$		MIN.	1500	V/ μs
$(dI/dt)_c$	$(dV/dt)_c=10V/\mu s$, $T_j=125$		MIN.	8	A/ms
t_{on}	$I_G=40mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	5	μs
t_{off}				70	
V_{CL}	$I_{CL}=0.1mA$ $t_p=1ms$		MIN.	1050	V

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=10A$ $t_p=380\mu s$	$T_j=25$	1.4	V
V_{TO}	Threshold voltage	$T_j=125$	0.78	V
R_D	Dynamic resistance	$T_j=125$	38	m Ω
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	8	μA
I_{RRM}		$T_j=125$	0.8	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	3	/W
$R_{th(j-a)}$	junction to ambient (AC)	100	/W



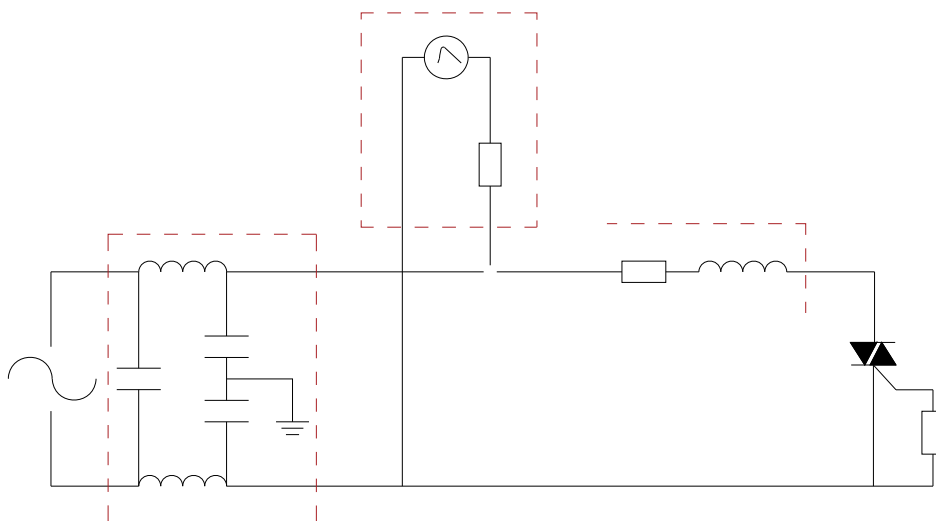
ORDERING INFORMATION

AC	J	T	8	25	-10	H
AC switch		Triacs				H:TO-251
JieJie Microelectronics Co., Ltd.		IT(RMS):8A				
		25: IGT1-3 025mA			10:VDRM /VRRM 11000V	

MARKING

	XXX XXX Year Month Production Code
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FIG.7 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



**ORDERING INFORMATION**

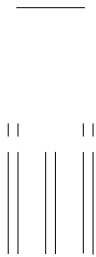
Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
ACJT825-10H	1000	25	TO-251	80	Tube

Document Revision History

Date	Revision	Changes
Apr.13, 2023	A.1.0	Last updated
Oct.24, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA



PACKAGE MECHANICAL DATA





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