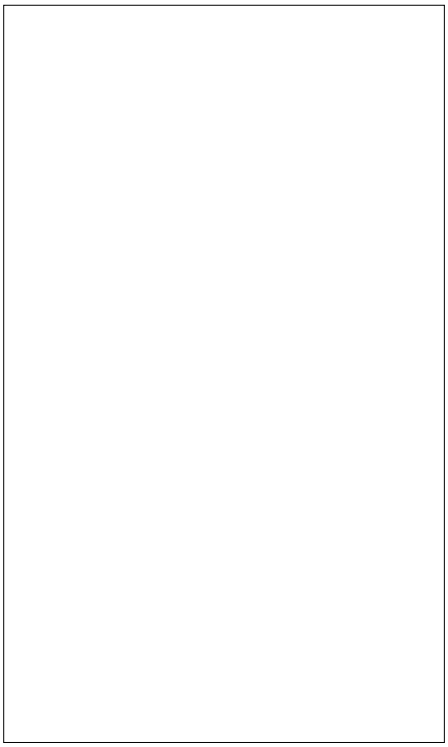
ACJT825-8K 8A TRIAC

Rev.A.1.1

The ACJT825-8K 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 ACJT825-8K embeds a TVS structure to absorb the inductive turn-off energy such as those described in the IEC 61000-4-5 standards. Package TO-252 is RoHS compliant.



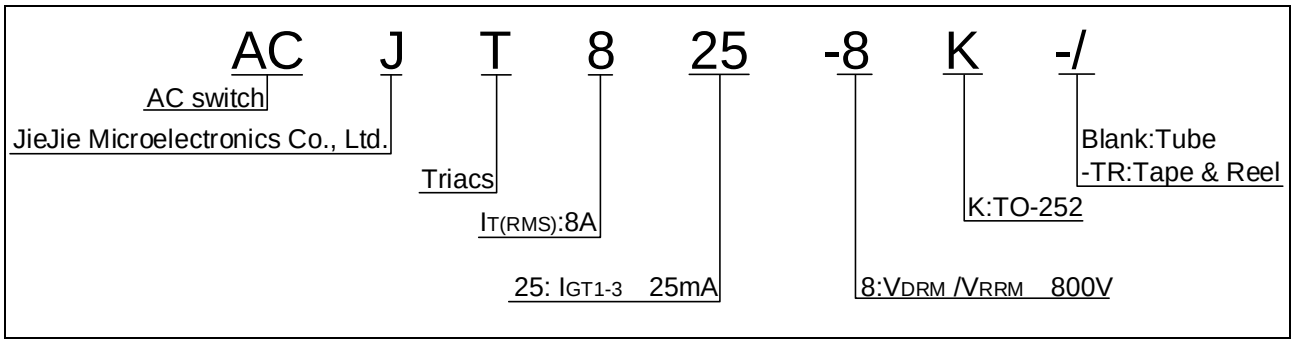
Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-125	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current (T_C 107)	$I_{T(RMS)}$	8	A

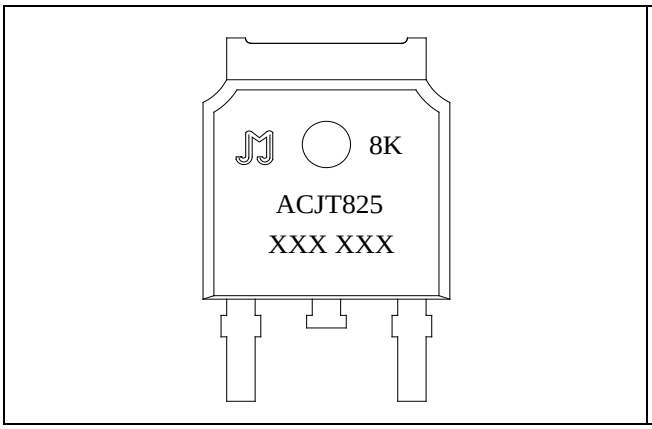
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.8)	V_{pp}

(T_j=25 unless otherwi

Symbol	Test Condition	Quadrant	
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.
V_{GT}		- -	MAX.
V_{GD}	V_D =V_{DRM} T_j =125 R_L =3.3KΩ	- -	MIN.
I_L	I_G =1.2I_{GT}	-	MAX.
I_H	I_T =100mA		MAX.
dV/dt	V_D=540V Gate Open T_j =125		MIN.
(dI/dt)c	(dV/dt)c=10V/μs, T_j=125		MIN.
t_{on}	I_G=40mA I_A=200mA I_R=20mA T_j=25		TYP.
t_{off}			
V_{CL}	I_{CL}=0.1mA t_p=1ms		MIN.

Symbol	Parameter
V_{TM}	IU30CS0 (800005)/C2_22.92 3.08 0 Td (8522 0.48 <021D>d (04 82


AC
J
T
8
25
-8
K
-/
AC switch
JieJie Microelectronics Co., Ltd.
Triacs
IT(RMS):8A
25: IGT1-3 25mA
8:VDRM /VRRM 800V
K:TO-252
Blank:Tube
-TR:Tape & Reel


8K
ACJT825
XXX XXX

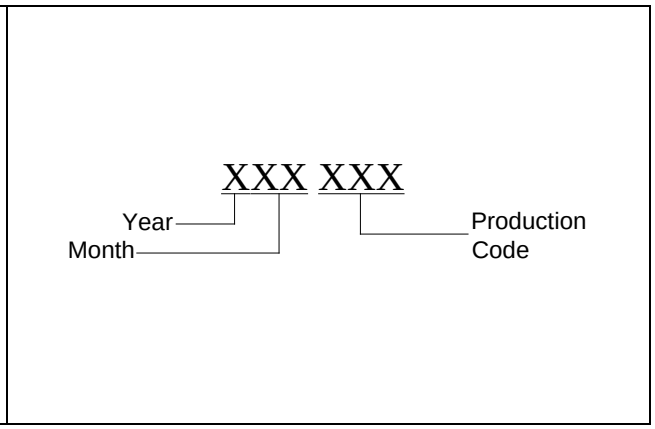

XXX XXX
Year
Month
Production
Code

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

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

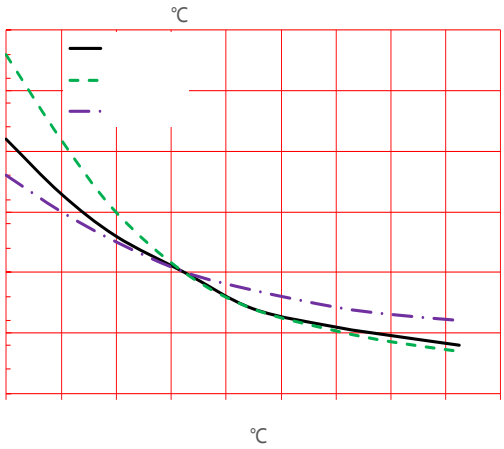
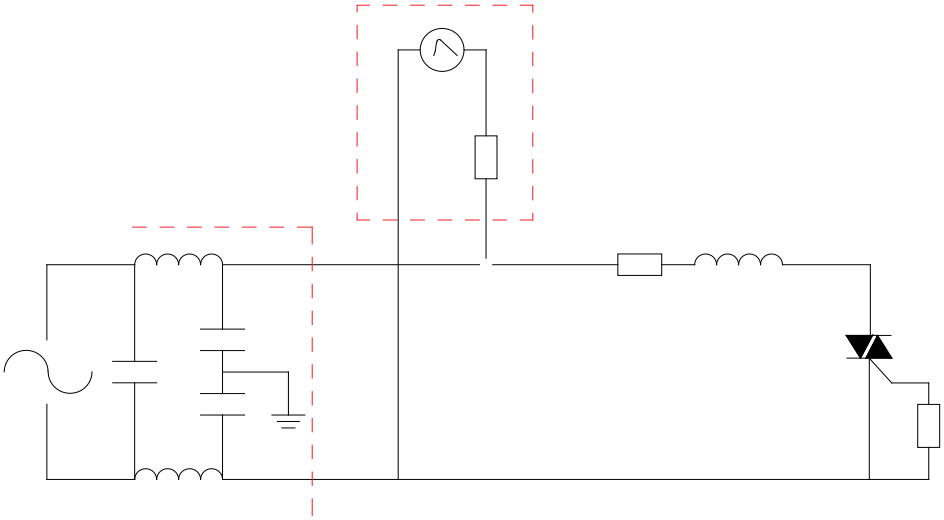


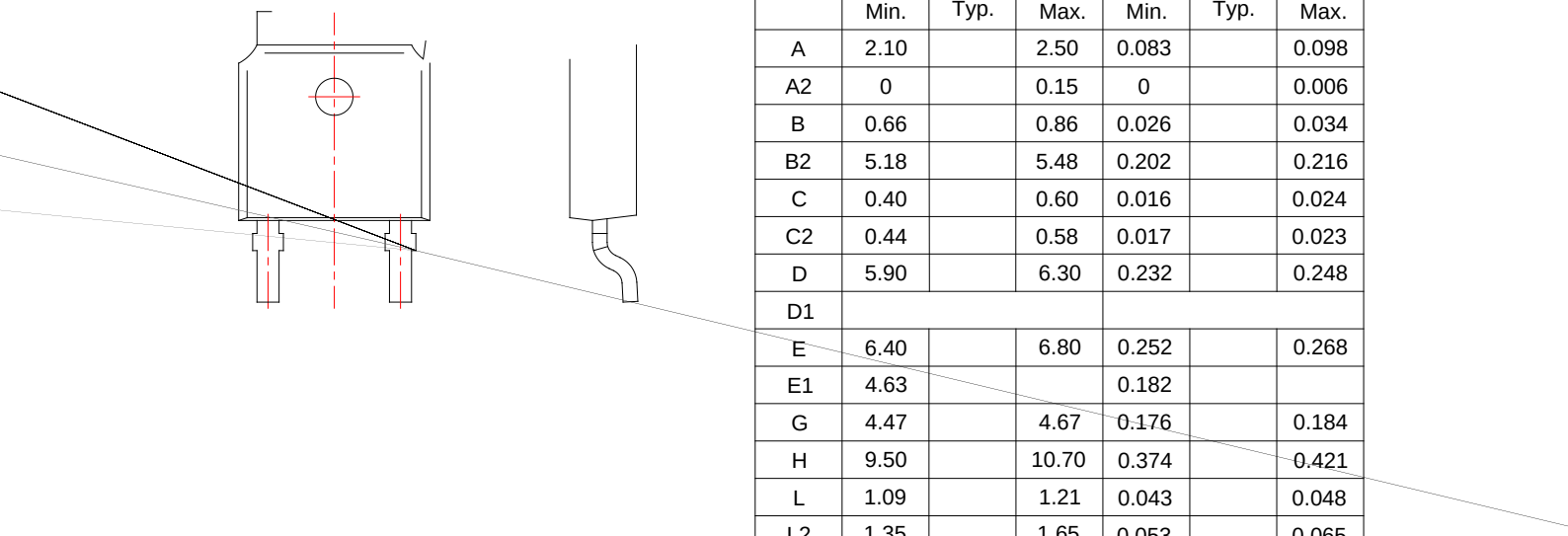
FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
ACJT825-8K	800	25	TO-252	80	Tube
ACJT825-8K-TR				2,500	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.13, 2023	A.1.0	Last updated
Oct.23, 2023	A.1.1	Change $R_{th(j-c)}$&$R_{th(j-a)}$



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10		2.50	0.083		0.098
A2	0		0.15	0		0.006
B	0.66		0.86	0.026		0.034
B2	5.18		5.48	0.202		0.216
C	0.40		0.60	0.016		0.024
C2	0.44		0.58	0.017		0.023
D	5.90		6.30	0.232		0.248
D1						
E	6.40		6.80	0.252		0.268
E1	4.63			0.182		
G	4.47		4.67	0.176		0.184
H	9.50		10.70	0.374		0.421
L	1.09		1.21	0.043		0.048
L2	1.35		1.65	0.053		0.065
V1		7°			7°	
V2	0°		6°	0°		6°