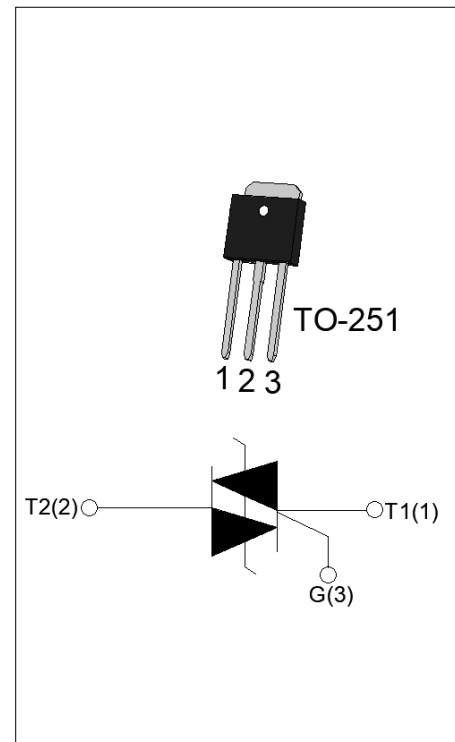


**ACJT625-8H 6A TRIAC**

Rev.A.1.0

**DESCRIPTION:**

The ACJT625-8H 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 ACJT625-8H 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**

Symbol	Value	Unit
$I_{T(RMS)}$	6	A
$V_{DRM}/V_{RRM}$	800	V
$I_{GT} / /$	25/25/25	mA

**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 ( $T_j=25^\circ C$ )	$V_{DRM}$	800	V
Repetitive peak reverse voltage ( $T_j=25^\circ C$ )	$V_{RRM}$	800	V
RMS on-state current ( $T_c = 91^\circ C$ )	$I_{T(RMS)}$	6	A
Non repetitive surge peak on-state current (full cycle, $t_p=20ms$ , $T_j=25^\circ C$ )	$I_{TSM}$	60	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6ms$ , $T_j=25^\circ C$ )		66	
$I^2t$ value for fusing ( $t_p=10ms$ , $T_j=25^\circ C$ )	$I^2t$	18	$A^2s$
Critical rate of rise of on-state current ( $I_G=2 I_{GT}$ , $f=100Hz$ , $T_j=125^\circ C$ )	$di/dt$	100	$A/\mu s$
Peak gate current ( $t_p=20\mu s$ , $T_j=125^\circ C$ )	$I_{GM}$	4	A
Average gate power dissipation ( $T_j=125^\circ C$ )	$P_{G(AV)}$	0.5	W
Peak gate power	$P_{GM}$	10	W

Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG.7)	$V_{pp}$	3.5	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.	25	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.	40	mA
				60	
$I_H$	$I_T=100mA$		MAX.	40	mA
$dV/dt$	$V_D=540V$ Gate Open $T_j=125$		MIN.	2500	V/ $\mu s$
$(dI/dt)_c$	$(dV/dt)_c=20V/\mu s$ , $T_j=125$		MIN.	8	A/ms
$t_{on}$	$I_G=40mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	3	$\mu s$
$t_{off}$				30	
$V_{CL}$	$I_{CL}=0.1mA$ $t_p=1ms$		MIN.	850	V

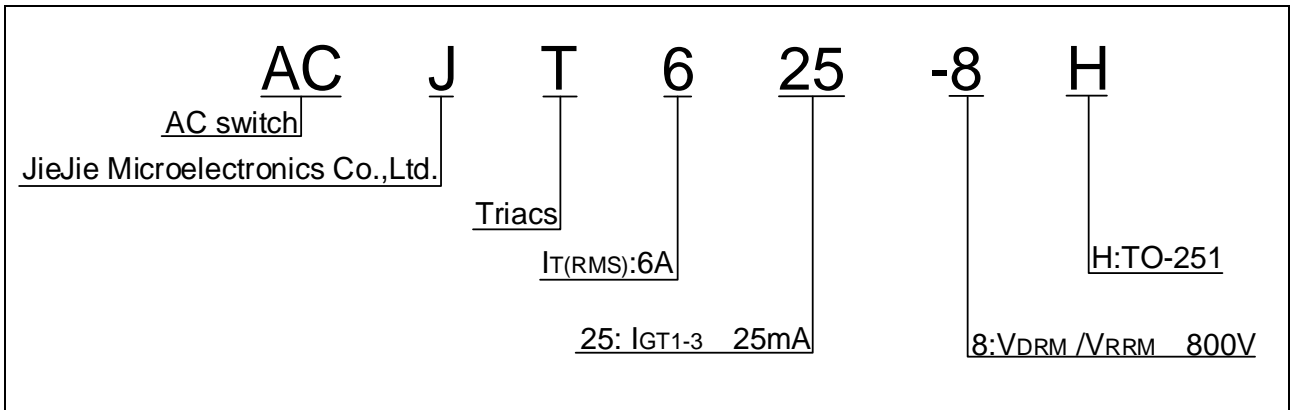
**STATIC CHARACTERISTICS**

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=8.5A$ $t_p=380\mu s$	$T_j=25$	1.5	V
$V_{TO}$	Threshold voltage	$T_j=125$	0.82	V
$R_D$	Dynamic resistance	$T_j=125$	64	m
$I_{DRM}$	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	$\mu A$
$I_{RRM}$		$T_j=125$	0.3	mA

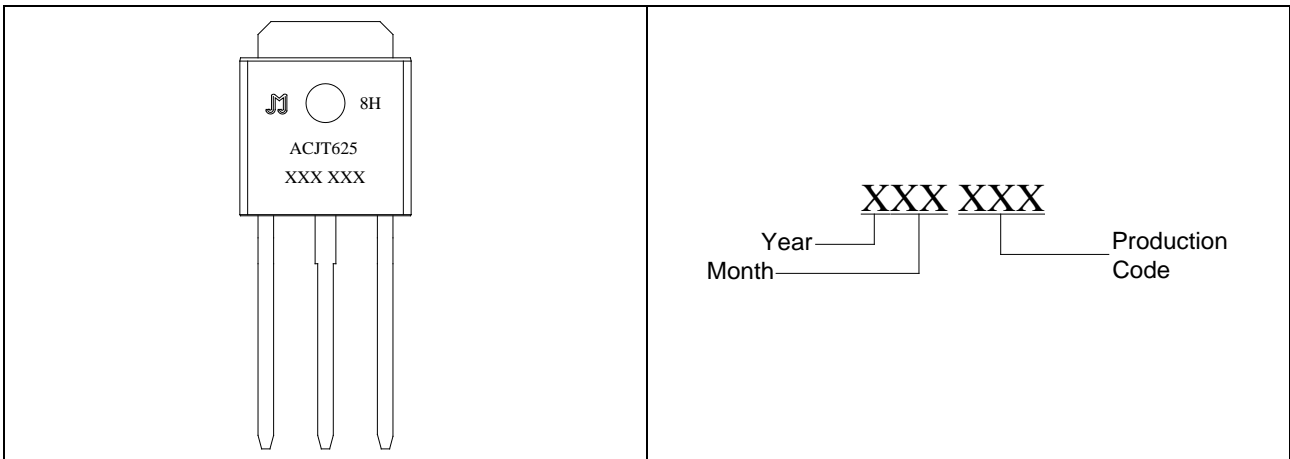
**THERMAL RESISTANCES**

Symbol	Parameter	Value
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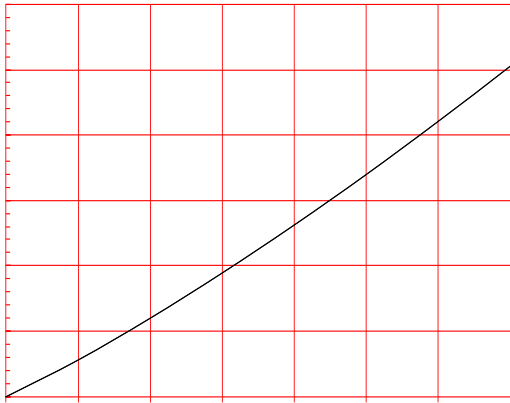
ORDERING INFORMATION



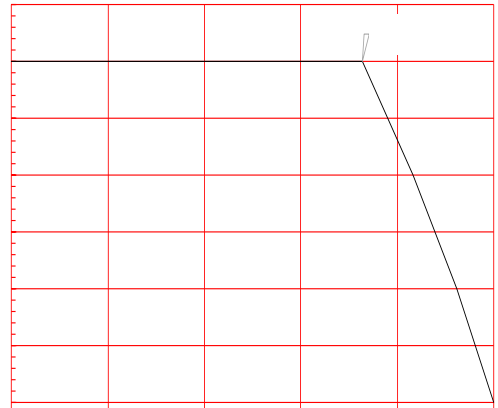
MARKING



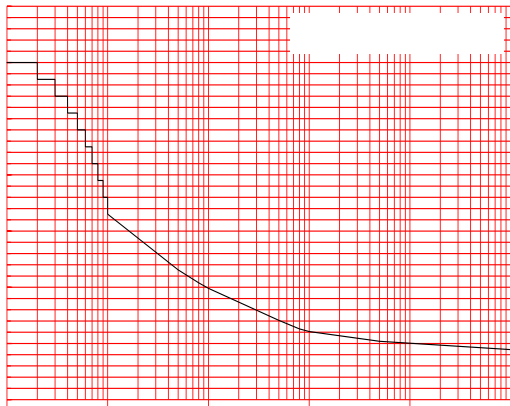
**FIG.1** Maximum power dissipation versus RMS on-state current



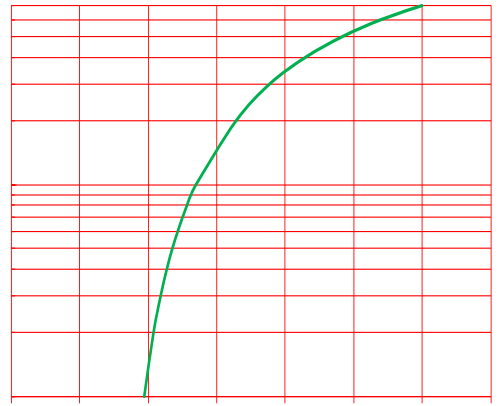
**FIG.2:** RMS on-state current versus case temperature



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



**FIG.4:** On-state characteristics





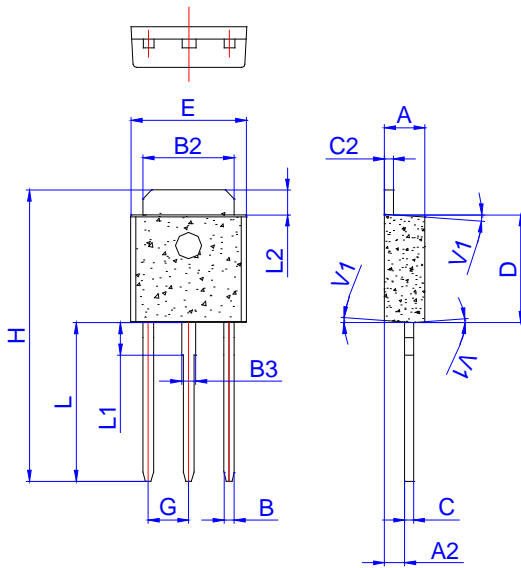
**ORDERING INFORMATION**

<b>Order code</b>	<b>Voltage <math>V_{DRM}/V_{RRM}</math> (V)</b>	<b>IGT(mA)</b>	<b>Package</b>	<b>Base qty. (pcs)</b>	<b>Delivery mode</b>
<b>ACJT625-8H</b>	<b>800</b>	<b>25</b>	<b>TO-251</b>	<b>80</b>	<b>Tube</b>

**Document Revision History**

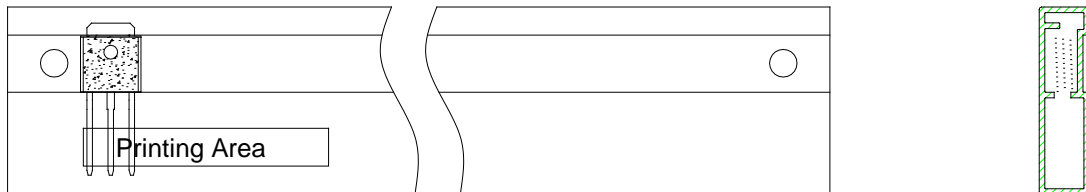
<b>Date</b>	<b>Revision</b>	<b>Changes</b>
Apr.14, 2023	A.1.0	Last updated

PACKAGE MECHANICAL DATA




Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.20		2.40	0.086		0.095
A2	1.00		1.30	0.039		0.051
B	0.50		0.70	0.020		0.028
B2	5.10		5.40	0.200		0.213
B3	0.70		1.00	0.028		0.039
C	0.45		0.62	0.018		0.024
C2	0.48		0.62	0.019		0.024
D	6.00		6.20	0.236		0.244
E	6.40		6.70	0.252		0.264
G	2.20		2.40	0.087		0.094
H	16.0		17.0	0.630		0.669
L	8.90		9.40	0.350		0.370
L1	1.80		2.20	0.071		0.087
L2	1.25		1.55	0.049		0.061
V1		4°			4°	

DELIVERY MODE



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