



Peak pulse voltage ( $T_j=25^\circ\text{C}$ ; non-repetitive, off-state; FIG.7)	$V_{pp}$	3.5	kV
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**ELECTRICAL CHARACTERISTICS** ( $T_j=25^\circ\text{C}$  unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D=12\text{V}$ $R_L=33\Omega$	I - II - III	MAX.	25	mA
$V_{GT}$		I - II - III	MAX.	1	V
$V_{GD}$	$V_D=V_{DRM}$ $T_j=125^\circ\text{C}$ $R_L=3.3\text{K}\Omega$	I - II - III	MIN.	0.2	V
$I_L$	$I_G=1.2I_{GT}$	I - III	MAX.	40	mA
		II		60	
$I_H$	$I_T=100\text{mA}$		MAX.	40	mA
$dV/dt$	$V_D=670\text{V}$ Gate Open $T_j=125^\circ\text{C}$		MIN.	1500	V/ $\mu\text{s}$
$(dI/dt)_c$	$(dV/dt)_c=20\text{V}/\mu\text{s}$ , $T_j=125^\circ\text{C}$		MIN.	8	A/ms
$t_{on}$	$I_G=40\text{mA}$ $I_A=200\text{mA}$ $I_R=20\text{mA}$ $T_j=25^\circ\text{C}$		TYP.	5	$\mu\text{s}$
$t_{off}$				70	
$V_{CL}$	$I_{CL}=0.1\text{mA}$ $t_p=1\text{ms}$		MIN.	1050	V

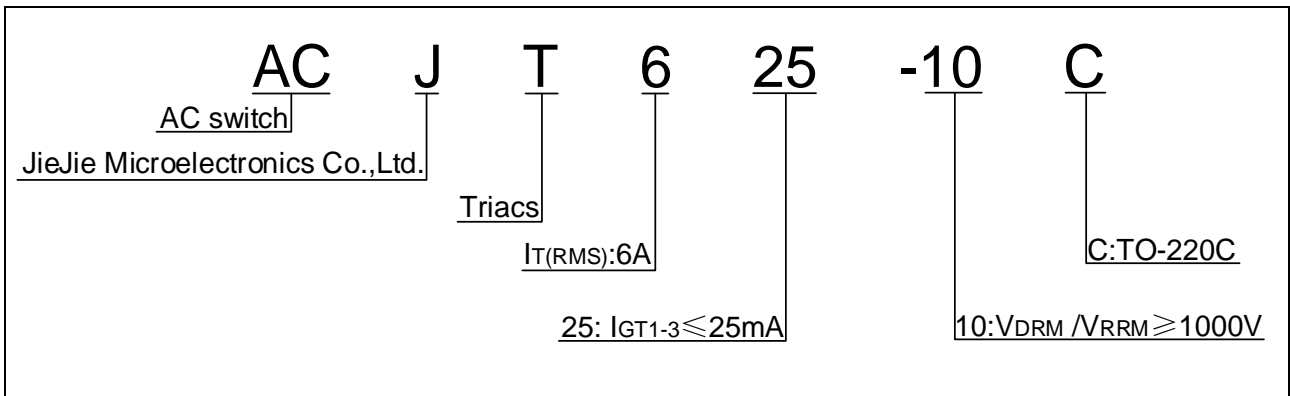
**STATIC CHARACTERISTICS**

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=8.5\text{A}$ $t_p=380\mu\text{s}$	$T_j=25^\circ\text{C}$	1.5	V
$V_{TO}$	Threshold voltage	$T_j=125^\circ\text{C}$	0.82	V
$R_D$	Dynamic resistance	$T_j=125^\circ\text{C}$	64	$\text{m}\Omega$
$I_{DRM}$	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25^\circ\text{C}$	8	$\mu\text{A}$
$I_{RRM}$		$T_j=125^\circ\text{C}$	0.5	mA

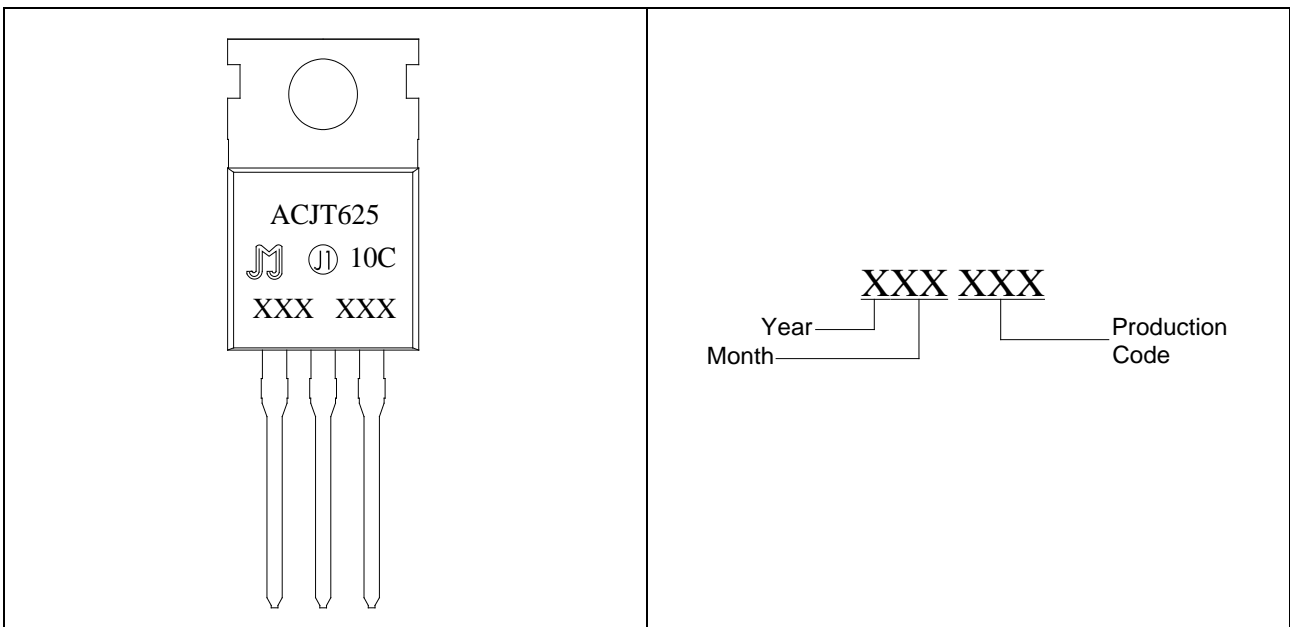
**THERMAL RESISTANCES**

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	1.7	$^\circ\text{C}/\text{W}$
$R_{th(j-a)}$	junction to ambient (AC)	60	$^\circ\text{C}/\text{W}$

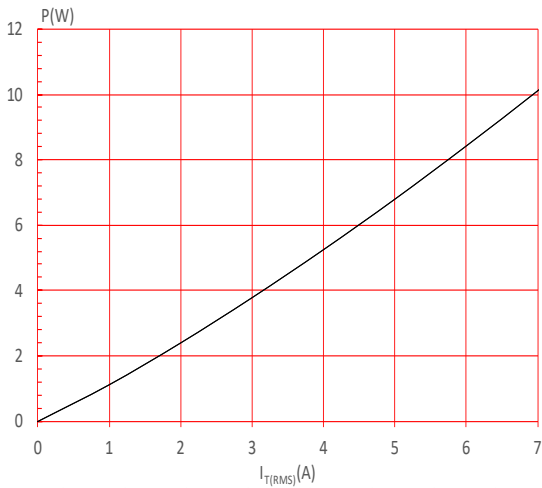
ORDERING INFORMATION



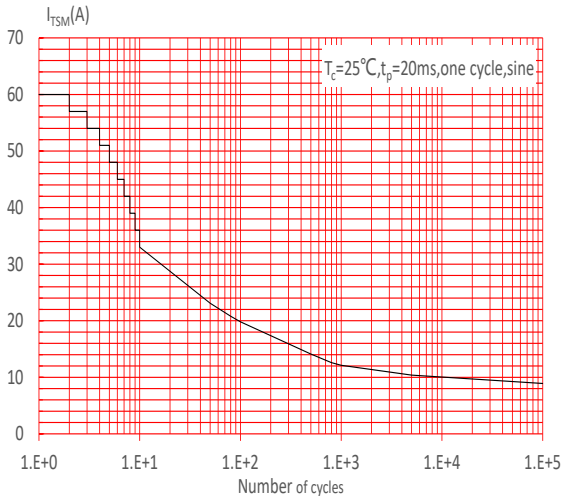
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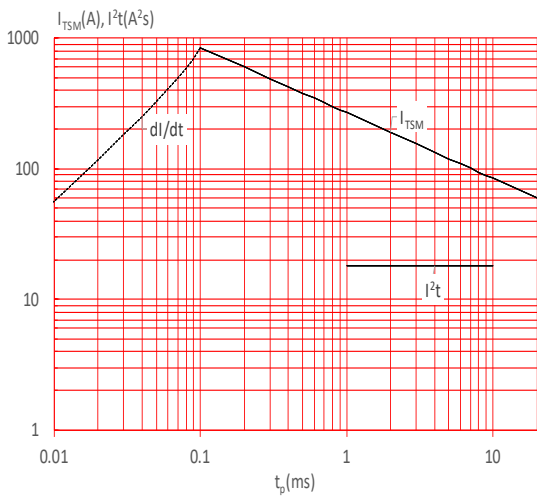
**FIG.1** Maximum power dissipation versus RMS on-state current



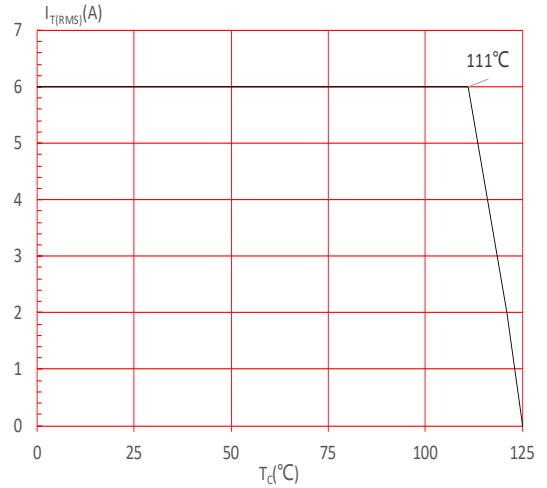
**FIG.3:** Surge peak on-state current versus number of cycles



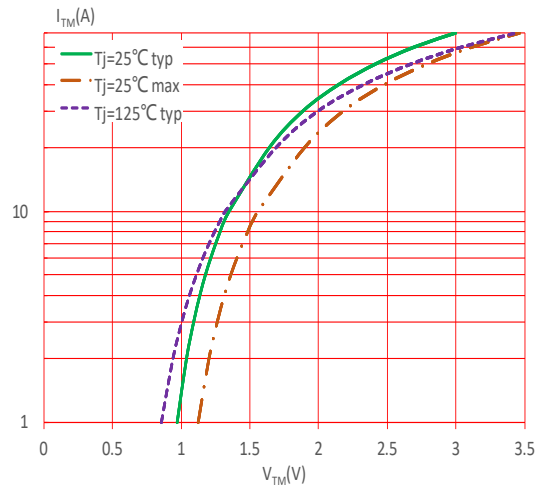
**FIG.5:** Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 20\text{ms}$ , and corresponding value of  $I^2t$  ( $di/dt < 100\text{A}/\mu\text{s}$ )



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



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



**FIG.6:** Relative variations of gate trigger current, holding current and latching current versus junction temperature

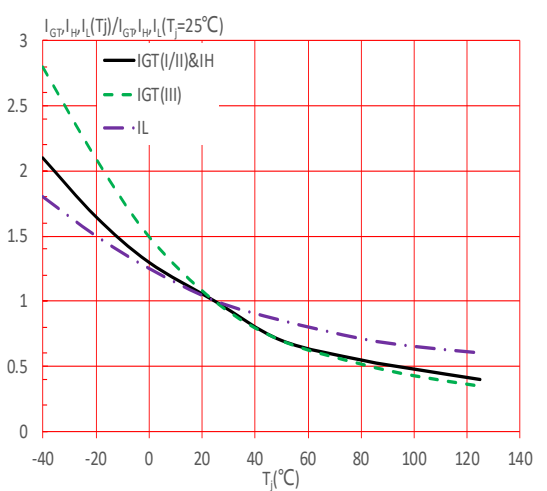
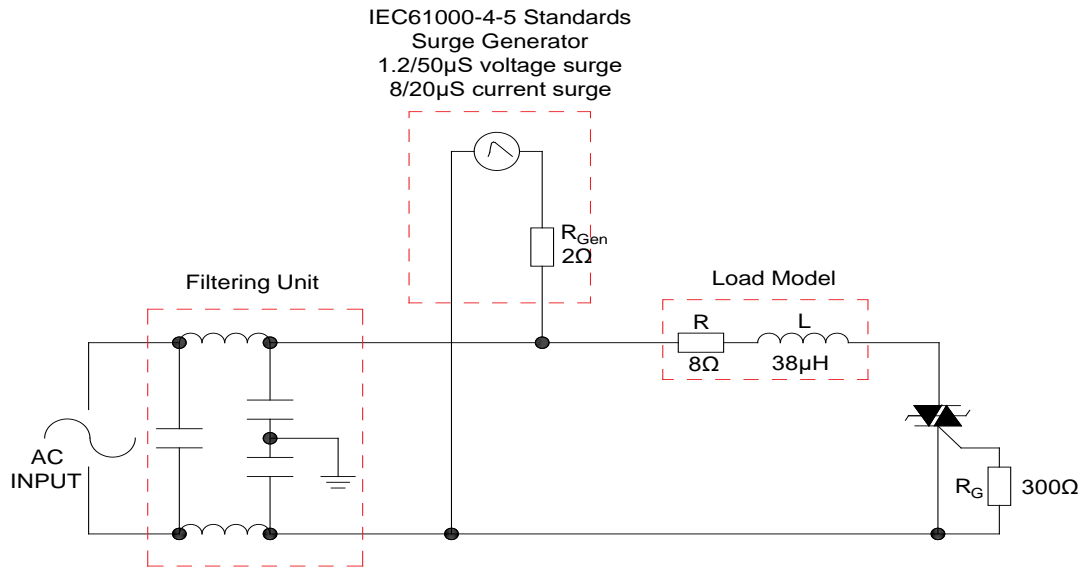


FIG.7: Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



### SHAPING AND SOLDERING PARAMETERS

Refer to 《Instructions for installation of plastic-sealed in-line power devices》 released by JieJie

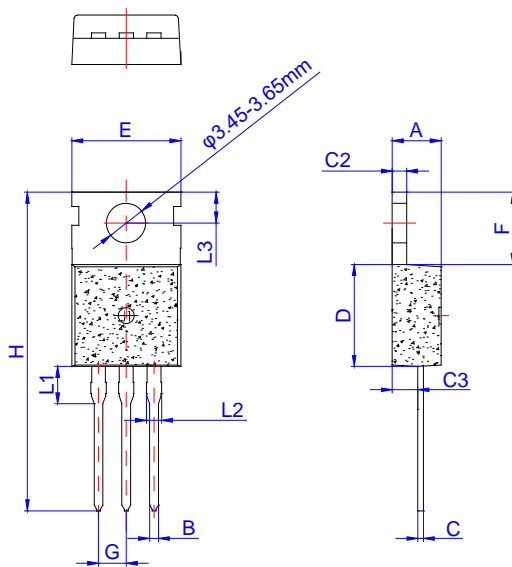
## ORDERING INFORMATION

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
ACJT625-10C	1000	25	TO-220C	50	Tube

## Document Revision History

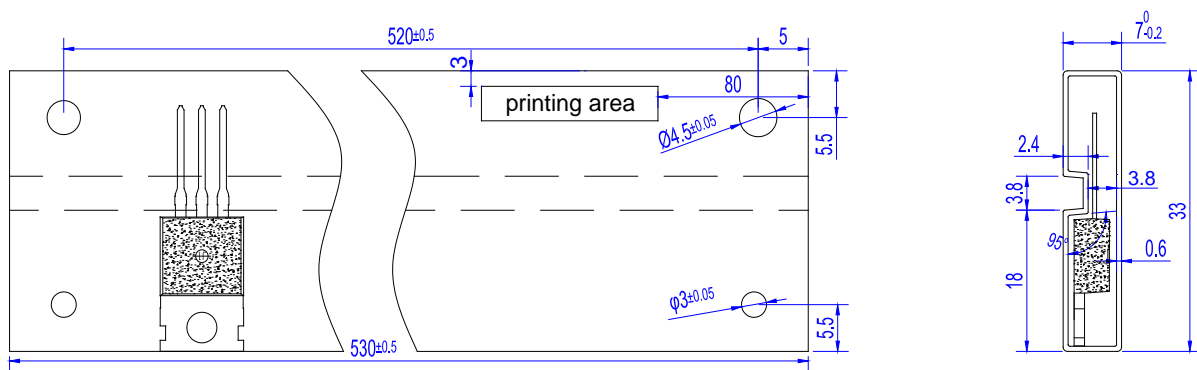
Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.70		0.90	0.028		0.035
C	0.45		0.60	0.018		0.024
C2	1.25		1.35	0.049		0.053
C3	2.20		2.60	0.087		0.102
D	8.90		9.90	0.350		0.390
E	9.90		10.3	0.390		0.406
F	6.30		6.90	0.248		0.272
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1	2.70		3.30	0.106		0.130
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116


DELIVERY MODE



PACKAGE	OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON
TO-220C	TUBE	50	1,000	5,000

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