

Average gate power dissipation ($T_j=125^{\circ}\text{C}$)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage ($T_j=25^{\circ}\text{C}$; non-repetitive, off-state; FIG.7)	V_{pp}	2	kV

(T_j=25°C unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12\text{V } R_L=33$	I - II - III	MAX.	50	mA
V_{GT}		I - II - III	MAX.	1.3	V
V_{GD}	$V_D=V_{DRM} T_j=125^{\circ}\text{C}$ $R_L=3.3\text{k}$	I - II - III	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	I - III	MAX.	120	mA
		II		120	
I_H	$I_T=1\text{A}$		MAX.	80	mA
dV/dt	$V_D=1070\text{V}$ Gate Open $T_j=125^{\circ}\text{C}$		MIN.	1500	V/s
(dI/dt) _c	$T_j=125^{\circ}\text{C}$		MIN.	28	A/ms
t_{on}	$I_G=80\text{mA } I_A=400\text{mA } I_R=40\text{mA}$ $T_j=25^{\circ}\text{C}$		TYP.	7	s
t_{off}				100	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=85\text{A } t_p=380 \text{ s}$	$T_j=25^{\circ}\text{C}$	1.7	V
V_{TO}	Threshold voltage	$T_j=125^{\circ}\text{C}$	0.68	V
R_D	Dynamic resistance	$T_j=125^{\circ}\text{C}$	27	m
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25^{\circ}\text{C}$	15	A
I_{RRM}		$T_j=125^{\circ}\text{C}$	10	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	1.21	$^{\circ}\text{C/W}$
$R_{th(j-a)}$	junction to ambient (AC)	40	$^{\circ}\text{C/W}$

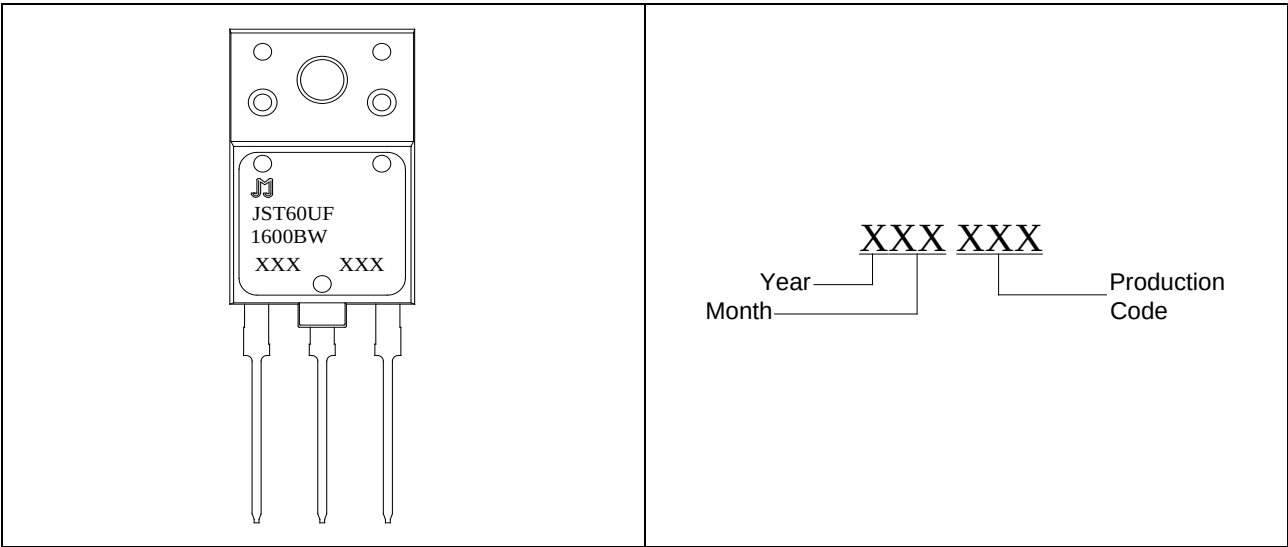
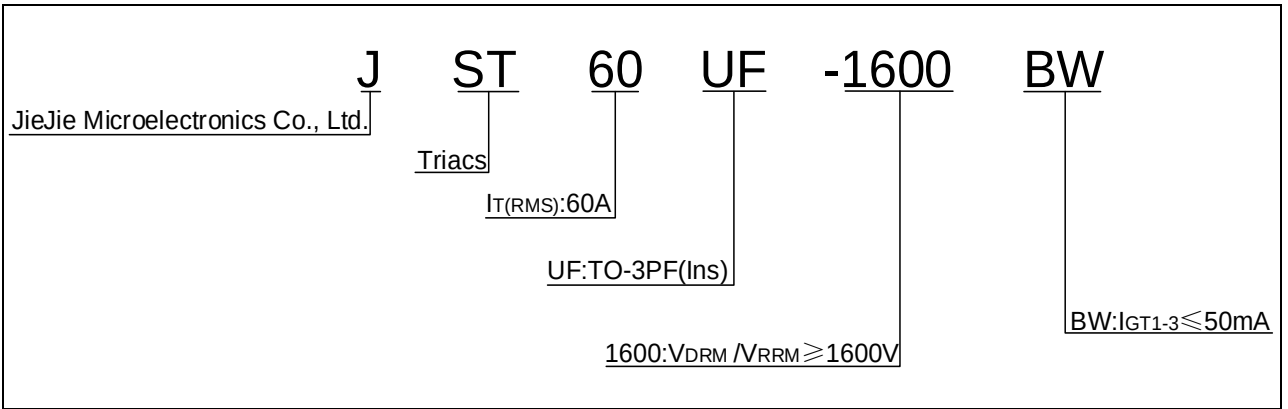


FIG.1: Maximum power dissipation versus RMS on-state current

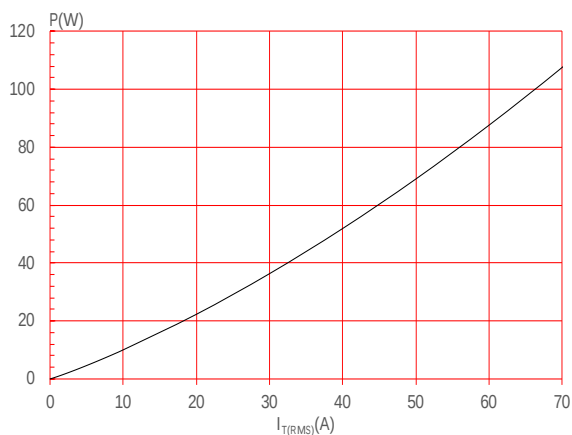


FIG.3: Surge peak on-state current versus number of cycles

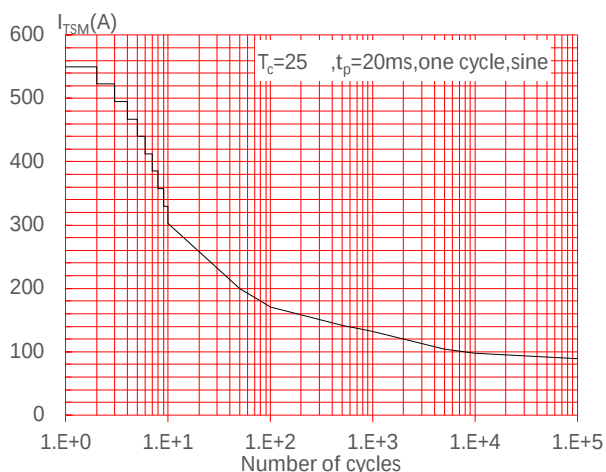


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20ms$, and corresponding value of I^2

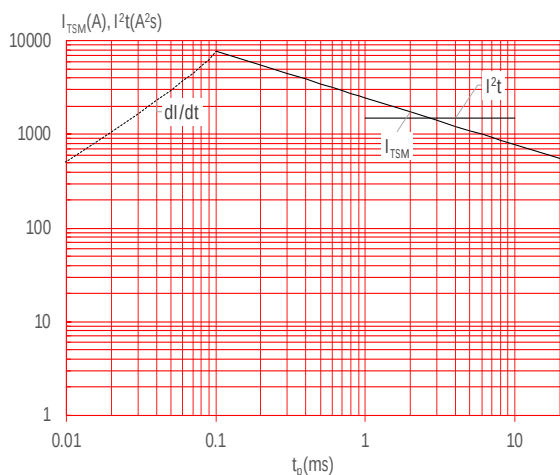


FIG.2: RMS on-state current versus case temperature

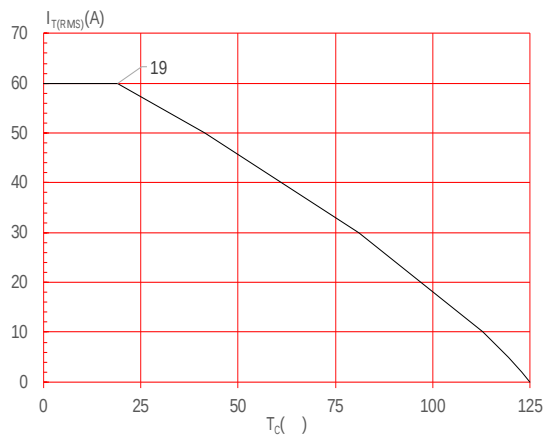


FIG.4: On-state characteristics

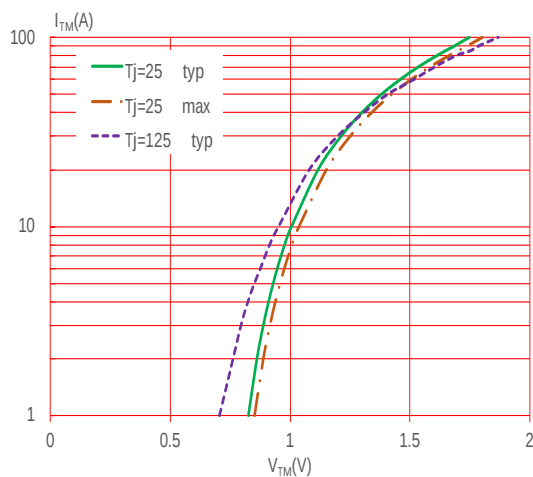


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

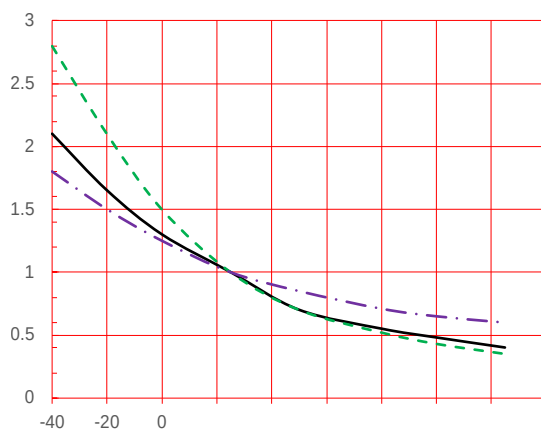
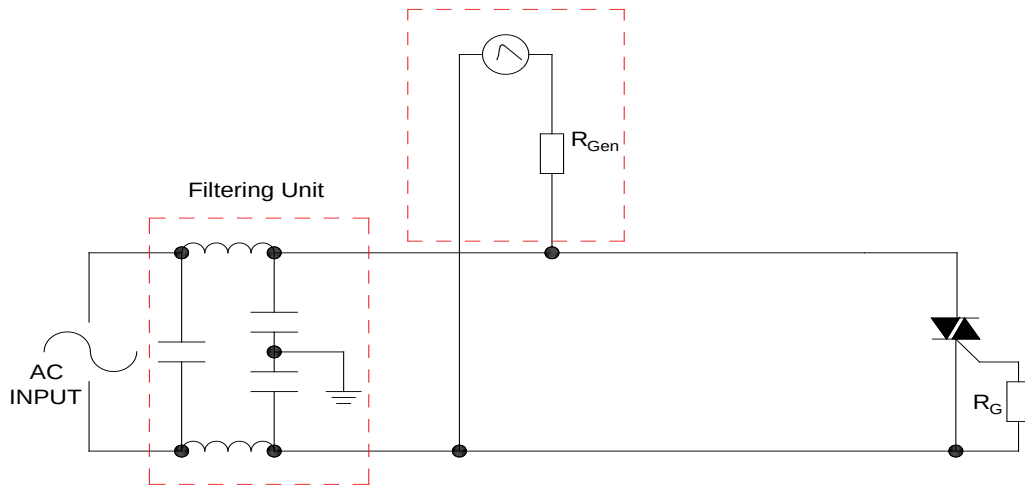


FIG.7: Test circuit for inductive and resistive loads to IEC-61000-4-5 standardsIEC61000-4-5 Standards
Surge Generator

Refer to the application note “Assembly Instructions for Thyristors in Through-hole Package” released by JieJie Microelectronics

Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
JST60UF-1600BW	1600	50	TO-3PF(Ins)	30	Tube

Document Revision History

Date	Revision	Changes
Jul.9, 2025	A.1.0	Last updated



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