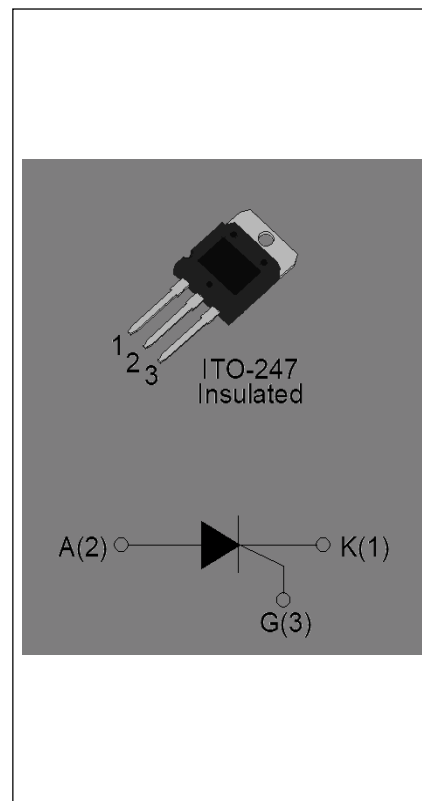




With high ability to withstand the shock loading of large current, JCT16110IS SCR provides high dv/dt rate with strong resistance to electromagnetic interference. It is especially recommended for use on solid state relay, UPS, SVC, power charger, T-tools etc. From all three terminals to external heatsink, JCT16110IS provides a rated insulation voltage of 2500 V_{RMS}, Package ITO-247 is RoHS compliant.



Symbol	Value	Unit
$I_{T(RMS)}$	110	A
V_{DRM}/V_{RRM}	1600	V
I_{GT}	10-80	mA

Storage junction temperature range	T_{stg}	-40-150	°C
Operating junction temperature range	T_j	-40-125	°C
Repetitive peak off-state voltage ($T_j=25^\circ\text{C}$)	V_{DRM}	1600	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	1600	V
Average on-state current ($T_c \leq 73^\circ\text{C}$)	$I_{T(AV)}$	70	A
RMS on-state current ($T_c \leq 73^\circ\text{C}$)	$I_{T(RMS)}$	110	A
Non repetitive surge peak on-state current ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	1100	A
Non repetitive surge peak on-state current ($t_p=8.3\text{ms}$, $T_j=25^\circ\text{C}$)		1200	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	6050	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$)	di/dt	200	$\text{A}/\mu\text{s}$



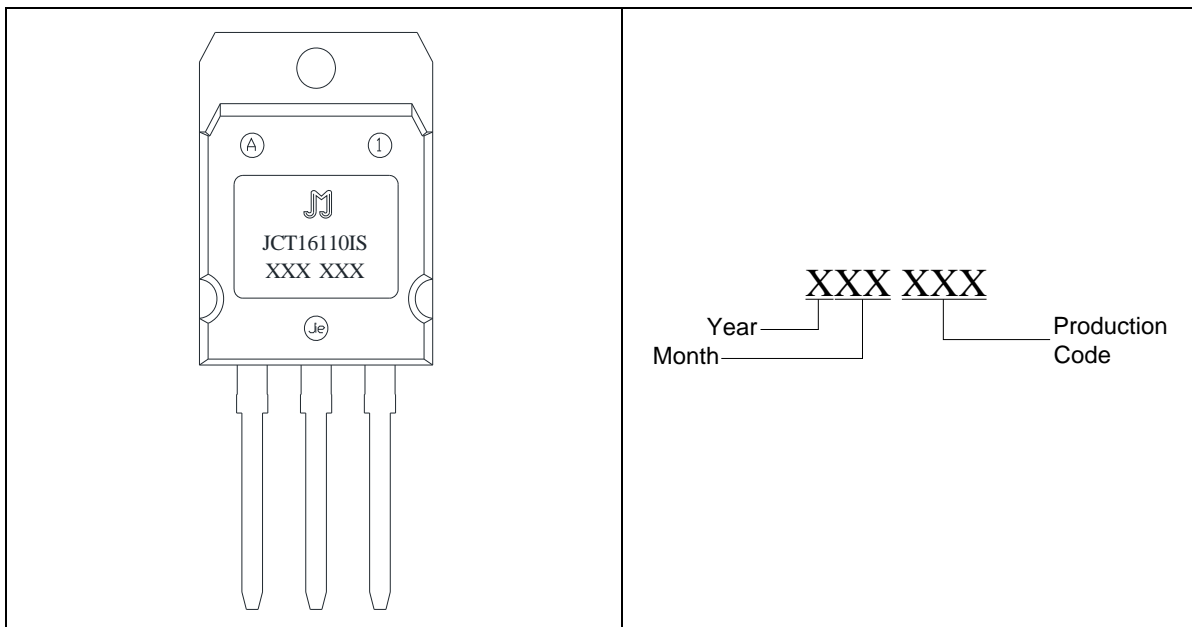
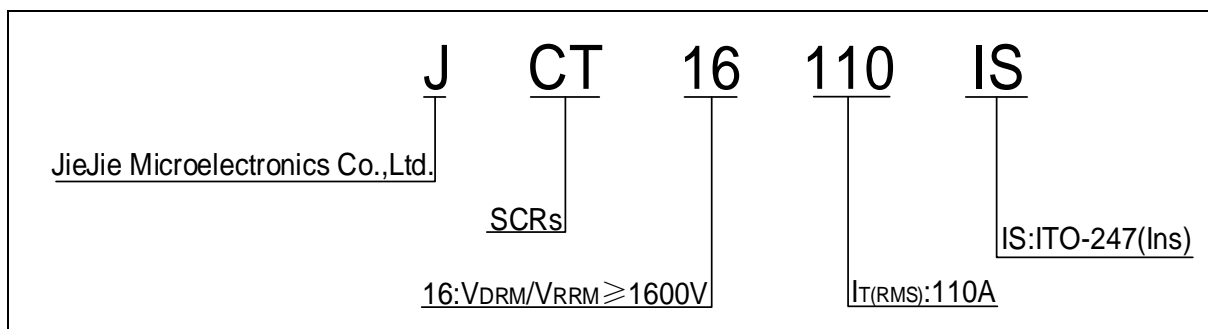
Peak gate current ($t_p=20\mu s$, $T_j=125^\circ C$)	I_{GM}	12	A
Average gate power dissipation ($T_j=125^\circ C$)	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	22	W
Peak pulse voltage ($T_j=25^\circ C$; non-repetitive, off-state; FIG.7)	V_{pp}	1.3	kV

($T_j=25^\circ C$ unless otherwise specified)

I_{GT}	$V_D=12V$ $R_L=33$	10	-	80	mA
V_{GT}		-	-	1.3	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125^\circ C$ $R_L=3.3K$	0.25	-	-	V
I_L	$I_G=1.2I_{GT}$	-	-	250	mA
I_H	$I_T=1A$	-	-	200	mA
dV/dt	$V_D=1070V$ Gate Open $T_j=125^\circ C$	2000	-	-	V/ μs
t_{on}	$I_G=100mA$ $I_A=1A$ $I_R=100mA$ $T_j=25^\circ C$	-	8	-	μs
t_{off}		-	200	-	

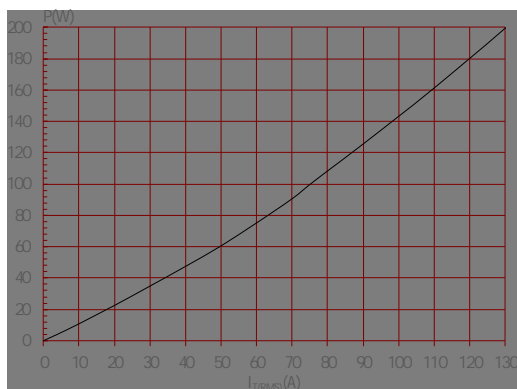
V_{TM}	$I_{TM}=150A$ $t_p=380\mu s$	$T_j=25^\circ C$	1.6	V
V_{TO}	Threshold voltage	$T_j=125^\circ C$	0.76	V
R_D	Dynamic resistance	$T_j=125^\circ C$	5.6	m
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25^\circ C$	15	μA
I_{RRM}		$T_j=125^\circ C$	10	mA

$R_{th(j-c)}$	junction to case (DC)	0.35	$^\circ C/W$
$R_{th(j-a)}$	junction to ambient (DC)	50	$^\circ C/W$

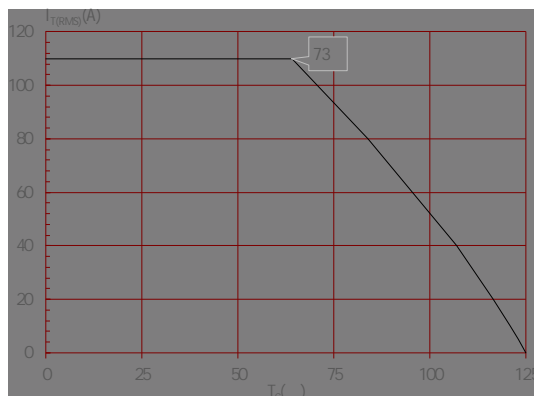




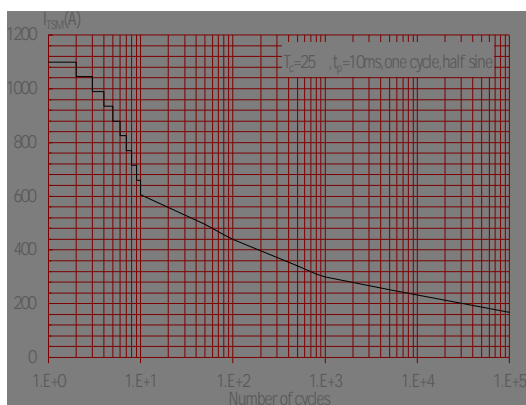
Maximum power dissipation versus RMS on-state current



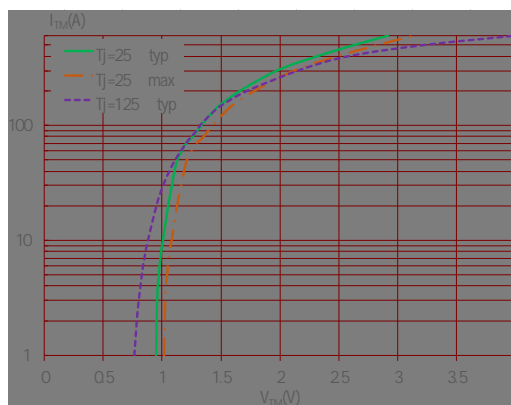
RMS on-state current versus case temperature



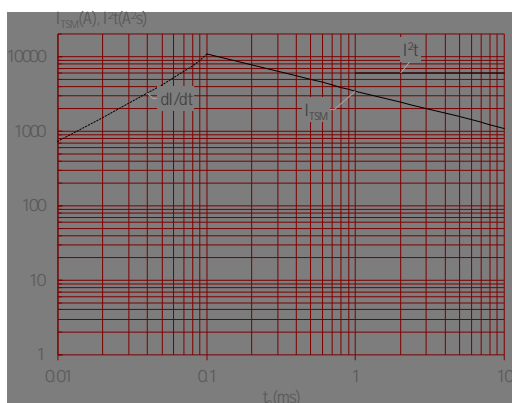
Surge peak on-state current versus number of cycles



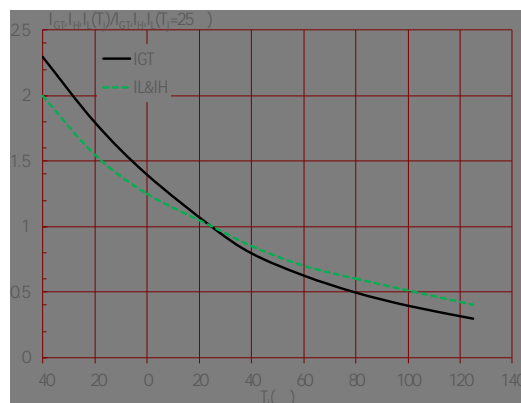
On-state characteristics



Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10\text{ms}$, and corresponding value of I^2t ($di/dt < 200\text{A}/\mu\text{s}$)



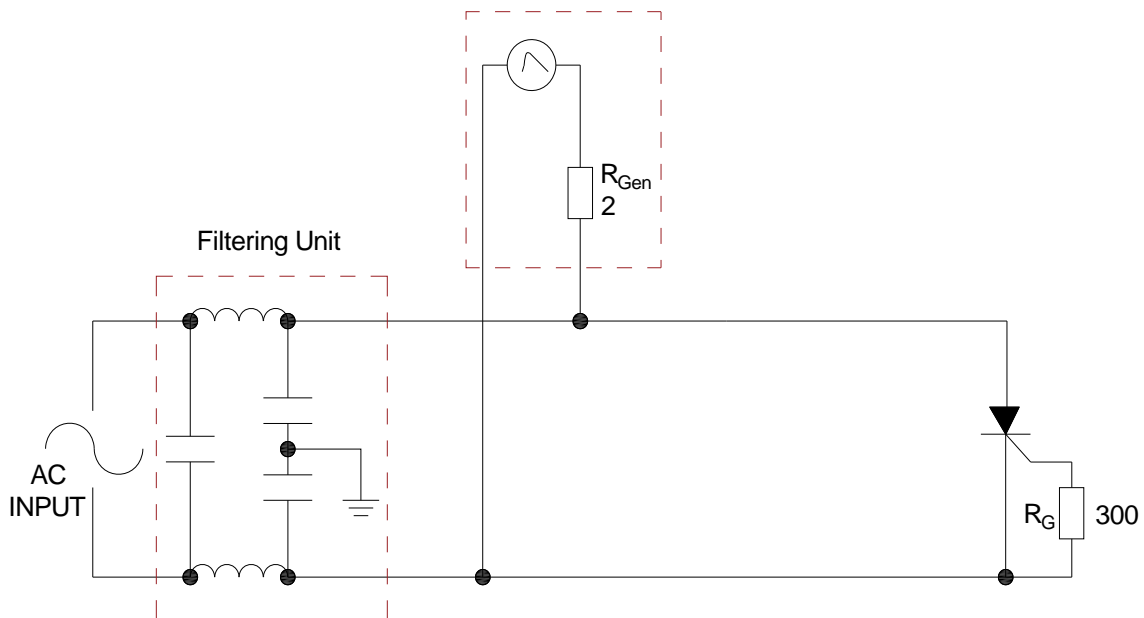
Relative variations of gate trigger current, holding current and latching current versus junction temperature





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

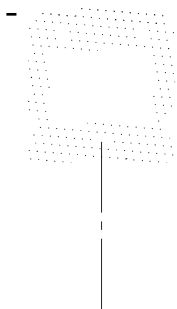
IEC61000-4-5 Standards
Surge Generator
1.2/50 μ S voltage surge
8/20 μ S current surge



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




Date	Revision	Changes
Apr.13, 2023	A.1.0	Last update





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