The JX012U SCR provides high dV/dt rate with strong resistance to electromagnetic interface. It is especially recommended for use on residual current circuit breaker, straight hair, igniter etc. Package TO-92 is RoHS compliant.

Symbol	Value	Unit
$I_{T(RMS)}$	1.25	A
V_{DRM} /V_{RRM}	1200	V
I_{GT}	≤200	μA

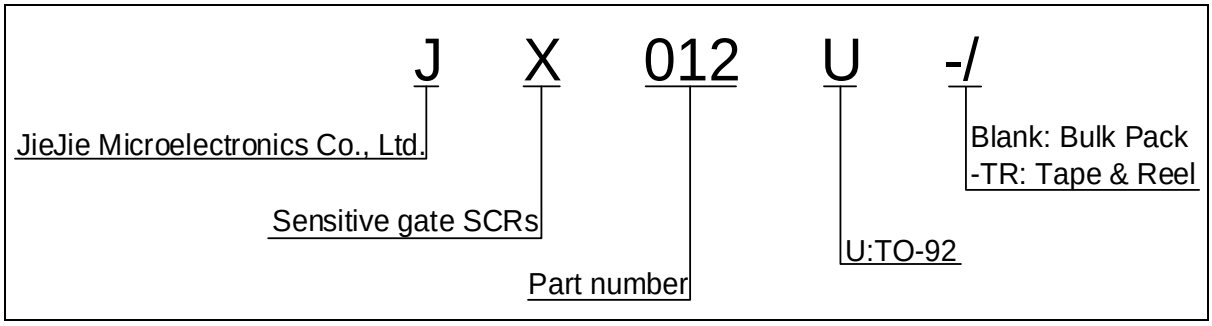
Peak gate power	P_{GM}	2	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	1	kV

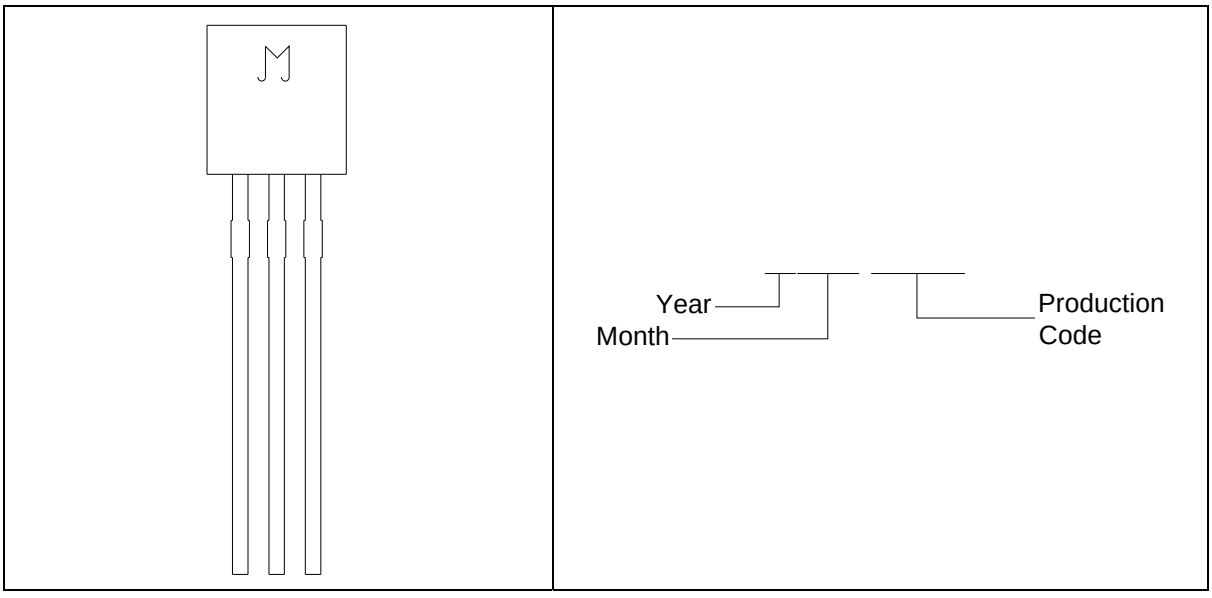
unless otherwise specified

I_{GT}	V_D=12V R_L=33Ω	-	50	200	μA
V_{GT}		-	0.6	0.8	V
V_{GD}	V_D=V_{DRM} T_j=110	0.2	-	-	V
I_L	I_G=1.2 I_{GT}	-	-	4	mA
I_H	I_T=0.05A	-	-	3	mA
dV/dt	V_D=800V T_j=110 R_{GK}=1kΩ	1000	-	-	V/μs
	V_D=800V T_j=110 R_{GK}=220Ω	1500	-	-	
t_{on}	I_G=10mA I_A=20mA I_R=2mA T_j=25	-	2	-	μs
t_{off}		-	50	-	μs

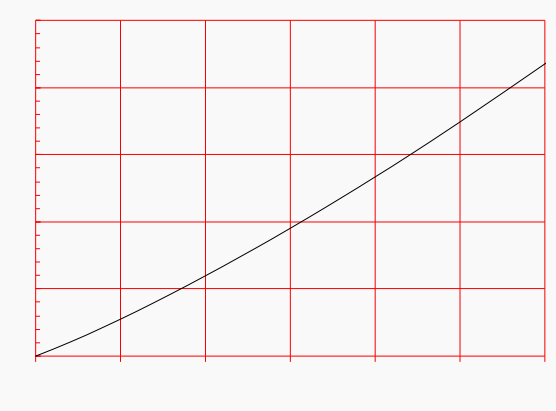
V_{TM}	I_T=1.5A t_p=380μs	T_j=25	1.45	V
V_{TO}	Threshold voltage	T_j=110	0.85	V
R_D	Dynamic Resistance	T_j=110	0.16	Ω
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=110	0.15	mA

$R_{th(j-c)}$	junction to case (DC)	40	/W
$R_{th(j-a)}$	junction to ambient (DC)	140	/W

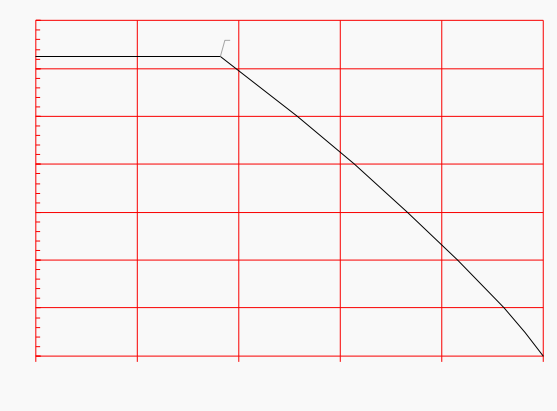

J X 012 U -/
JieJie Microelectronics Co., Ltd.
Sensitive gate SCRs
Part number
U:TO-92
Blank: Bulk Pack
-TR: Tape & Reel


Year
Month
Production
Code

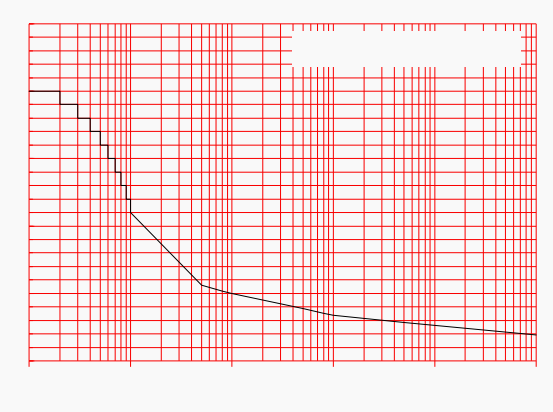
Maximum power dissipation versus RMS on-state current



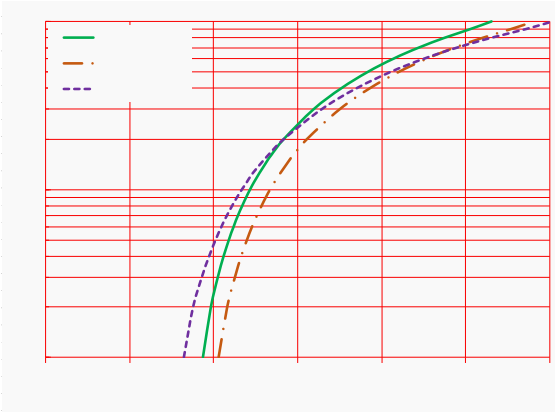
RMS on-state current versus case temperature



Surge peak on-state current versus number of cycles



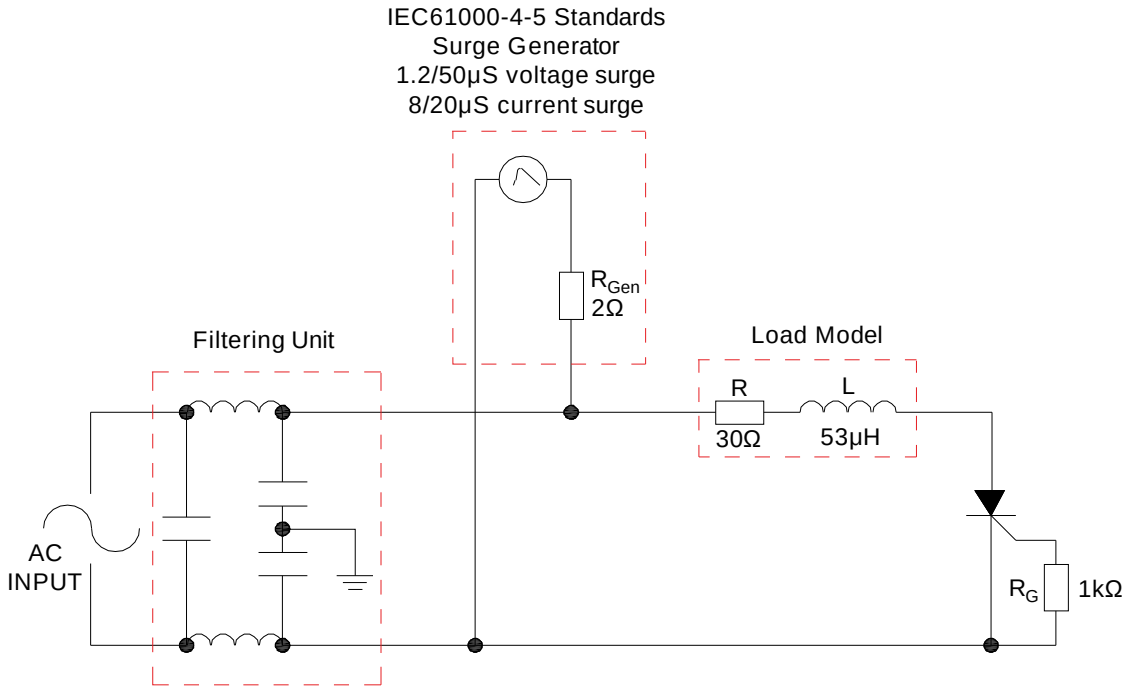
On-state characteristics



Non-repetitive surge peak on-state current for a sinusoidal pulse with width t_p<10ms, and corresponding value of I^2t (dI/dt<100A/μs)

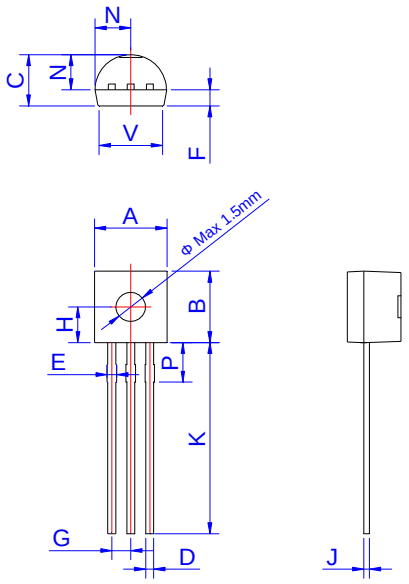
Relative variations of gate triggercurrent, holding current and latching current versus junction temperature

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



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

Date	Revision	Changes
May.18, 2023	A.1.0	Last update
Mar.28, 2025	A.2.0	Renew PACKAGE MECHANICAL DATA
Sept.28, 2025	A.2.1	Revise PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.45		5.20	0.175		0.205
B	4.32		5.33	0.170		0.210
C	3.18		4.19	0.125		0.165
D	0.407		0.533	0.016		0.021
E	0.50		0.70			
F	1.10					
G				0.043		
H	2.20			0.087		
J	0.36		0.50	0.014		0.020
K	12.70		15.0	0.500		0.591
N	2.04		2.66	0.080		0.105
P	1.80	10	2.30	0.071		0.091
V	4.10		4.50	0.161		0.177

f

.