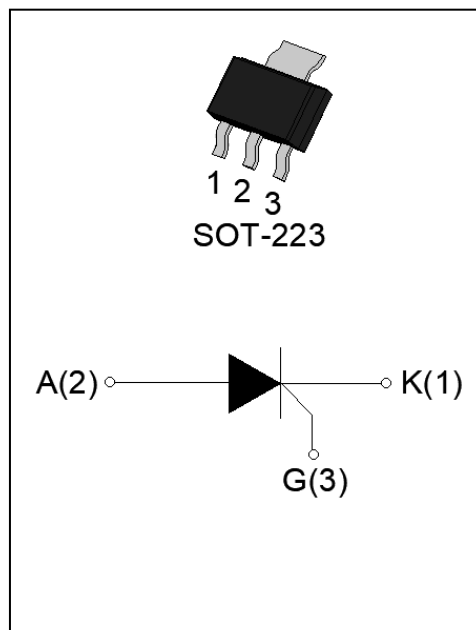




The JX008V SCR provides high dV/dt rate with strong resistance to electromagnetic interface. It is especially recommended for use on residual current circuit breaker, straight hair, igniter etc. Package SOT-223 is RoHS compliant.

Symbol	Value	Unit
$I_{T(RMS)}$	0.8	A
V_{DRM} / V_{RRM}	800	V
I_{GT}	200	μA



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
Average on-state current ($T_c = 89^\circ C$)	$I_{T(AV)}$	0.5	A
RMS on-state current ($T_c = 89^\circ C$)	$I_{T(RMS)}$	0.8	A
Non repetitive surge peak on-state current ($t_p=10ms, T_j=25^\circ C$)	I_{TSM}	8	A
Non repetitive surge peak on-state current ($t_p=8.3ms, T_j=25^\circ C$)		9	
I^2t value for fusing ($t_p=10ms, T_j=25^\circ C$)	I^2t	0.32	A^2s
Critical rate of rise of on-state current ($I_G=2 I_{GT}, f=100Hz, T_j=125^\circ C$)	di/dt	50	$A/\mu s$
Peak gate current ($t_p=20\mu s, T_j=125^\circ C$)	I_{GM}	1	A
Average gate power dissipation ($T_j=125^\circ C$)	$P_{G(AV)}$	0.1	W

Peak gate power	P_{GM}	2	W
Peak pulse voltage ($T_j=25$; non-repetitive,off-state;FIG.8)	V_{pp}	1	kV

NOTE 1: When we parallel connect a 1K resistor between Gate and Cathode, the T_j can reach 125 ; if without this resistor, the T_j only can reach 110 .

T_j unless otherwise specified

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	$V_D=12V R_L=33$	-	50	200	μA
V_{GT}		-	0.6	0.8	V
V_{GD}	$V_D=V_{DRM} T_j=125$	0.2	-	-	V
I_L	$I_G=1.2 I_{GT}$	-	-	4	mA
I_H	$I_T=0.05A$	-	-	3	mA
dV/dt	$V_D=540V T_j=125 R_{GK}=1K$	200	-	-	V/ μs
	$V_D=540V T_j=125 R_{GK}=220$	500	-	-	
t_{on}	$I_G=10mA I_A=20mA I_R=2mA$	-	2	-	μs
t_{off}	$T_j=25$	-	50	-	μs

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_T=1A t_p=380\mu s$	$T_j=25$	1.35	V
V_{TO}	Threshold voltage	$T_j=125$	0.93	V
R_D	Dynamic Resistance	$T_j=125$	0.34	
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	2	μA
I_{RRM}		$T_j=125$	0.2	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (DC)	35	/W
$R_{th(j-a)}$	junction to ambient (DC)	120	/W

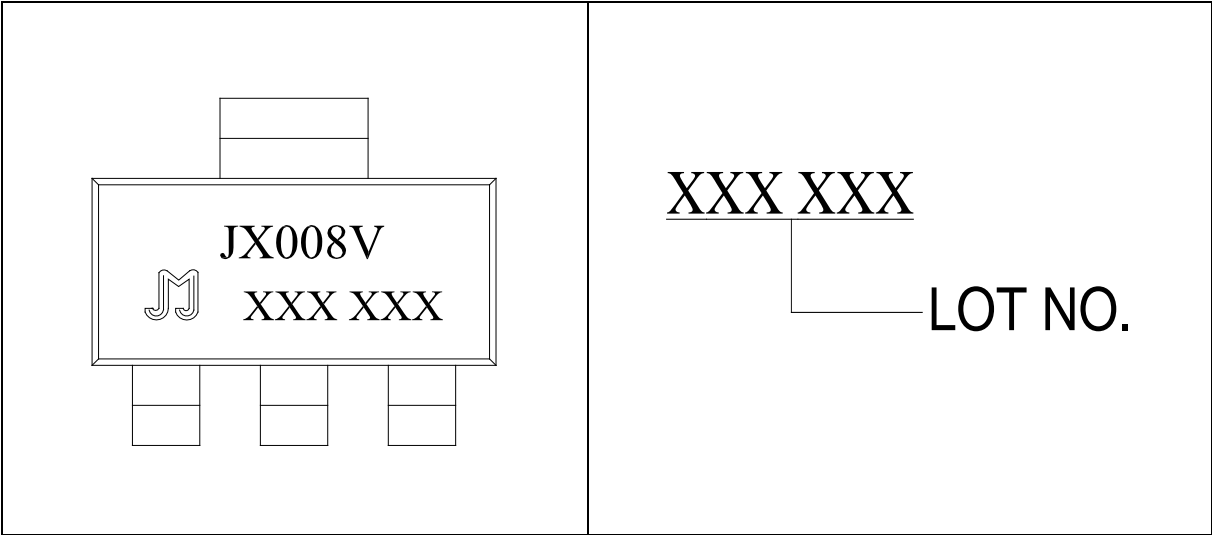
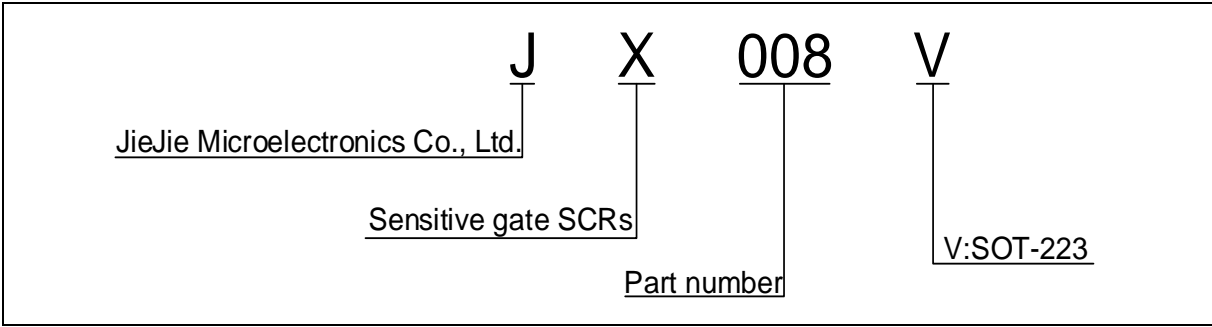


FIG.1 Maximum power dissipation versus RMS on-state current

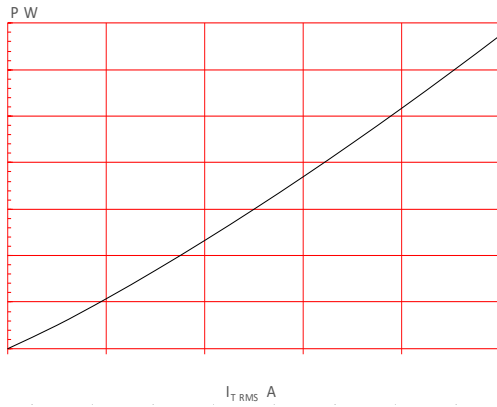


FIG.2: RMS on-state current versus case temperature

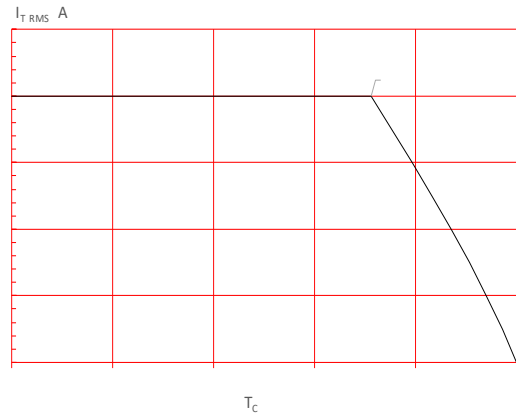


FIG.3: RMS on-state current versus ambient temperature (printed circuit board FR4,copper thickness:35μm)(full cycle)

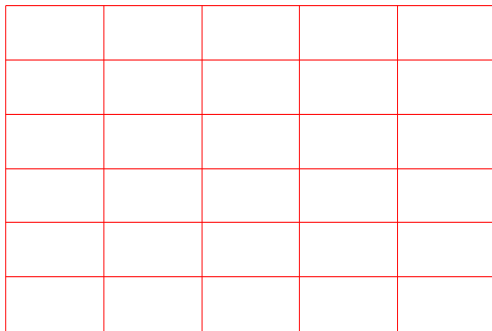


FIG.4: Surge peak on-state current versus number of cycles

FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

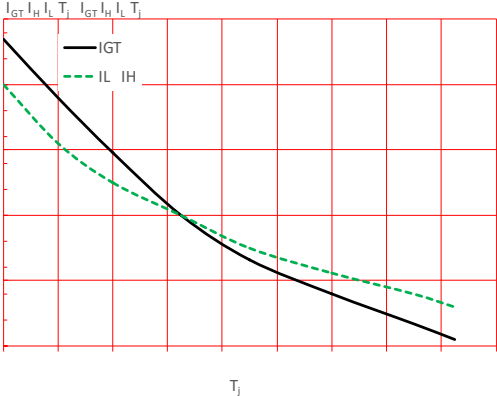
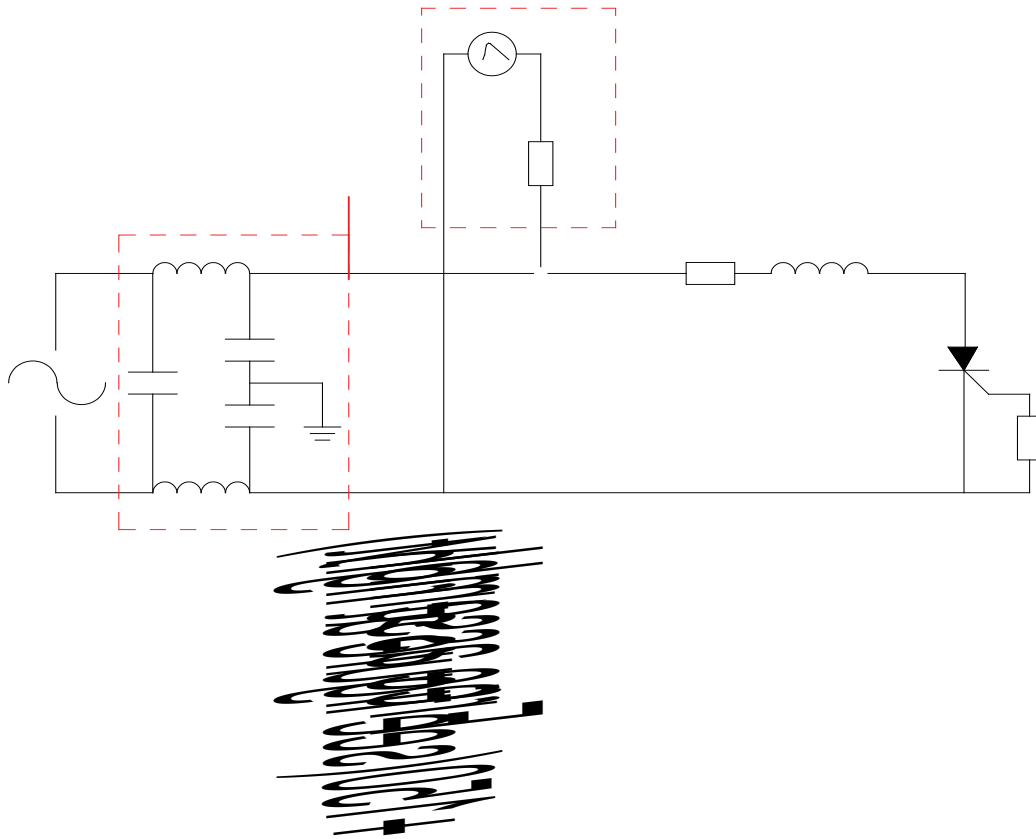


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.




Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT)	Package	Base qty. (pcs)	Delivery mode
JX008V	800	200	SOT-223	4,000	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.12, 2023	A.1.0	Last update

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W	-		12.30			
E	1.65	1.75	1.85			
F	5.45	5.50	5.55			
D0		1.55	1.60			
D1		-				
P0	3.90	4.00	4.10			
P1	7.90	8.00	8.10			
P2	1.95	2.00	2.05			
10P0	39.80	40.00	40.20			
A0	6.85	6.95	7.05			
B0	333565(i)	0.25(3)	4.70(3)	0.01(3)	0.18(3)	0.18(3)
K0						
T						

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement. Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document supersedes and replaces all information previously supplied.

 is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd.
Copyright ©2023 Jiangsu JieJie Microelectronics Co., Ltd. All rights reserved.