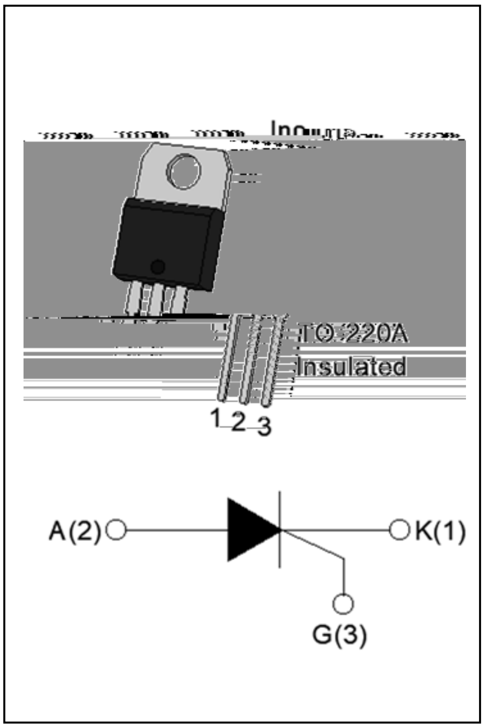
JX080A 8A Sensitive SCR

Rev.A.1.0

DESCRIPTION:

The JX080A 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. By using an internal ceramic pad, JX080A provides a rated insulation voltage of 2500 VRMS,complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	8	A
V_{DRM} /V_{RRM}	800	V
I_{GT}	≤200	μA

ABSOLUTE MAXIMUM RATINGS

Parameter	**Symbol**	**Value**	**Unit**
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-110	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
Average on-state current (T_C ≤ 82)	$I_{T(AV)}$	5	A
RMS on-state current (T_C ≤ 82)	$I_{T(RMS)}$	8	A
Non repetitive surge peak on-state current (tp=10ms , T_j=25)	I_{TSM}	80	A
Non repetitive surge peak on-state current (tp=8.3ms , T_j=25)		88	
I^2t value for fusing (tp=10ms , T_j=25)	I^2t	32	A^2s
Critical rate of rise of on-state current (I_G=2 × I_{GT} , f=100Hz , T_j=110)	dI/dt	100	A/μs
Peak gate current (tp=20μs, T_j=110)	I_{GM}	4	A

Average gate power dissipation (T_j=110)	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	0.5	kV

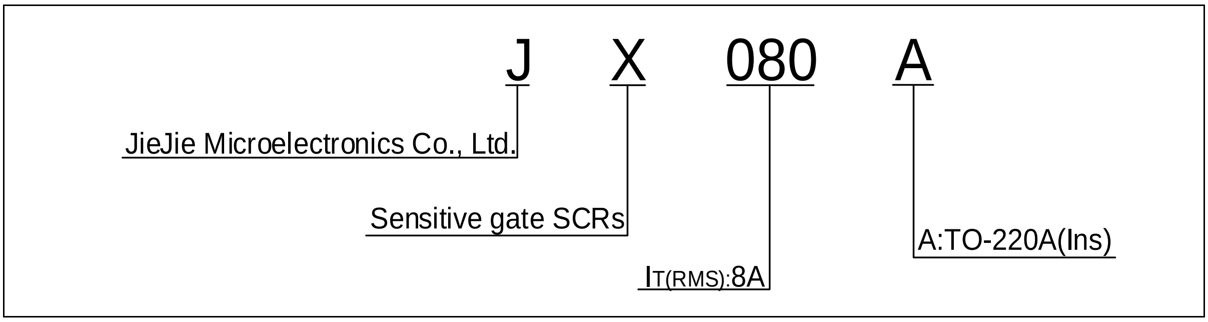
ELECTRICAL CHARACTERISTICS unless otherwise specified

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	V_D=12V R_L=33Ω	-	60	200	μA
V_{GT}		-	-	0.8	V
V_{GD}	V_D=V_{DRM} T_j=110	0.2	-	-	V
I_L	I_G=1.2 I_{GT}	-	-	6	mA
I_H	I_T=0.05A	-	-	5	mA
dV/dt	V_D=540V T_j=110 R_{GK}=1KΩ	50	-	-	V/μs
	V_D=540V T_j=110 R_{GK}=220Ω	200	-	-	
t_{on}	I_G=10mA I_A=20mA I_R=2mA T_j=25	-	2	-	μs
t_{off}		-	70	-	μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_T=16A tp=380μs	T_j=25	1.6	V
V_{TO}	Threshold voltage	T_j=110	0.79	V
R_D	Dynamic Resistance	T_j=110	0.04	Ω
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	μ

ORDERING INFORMATION



MARKING

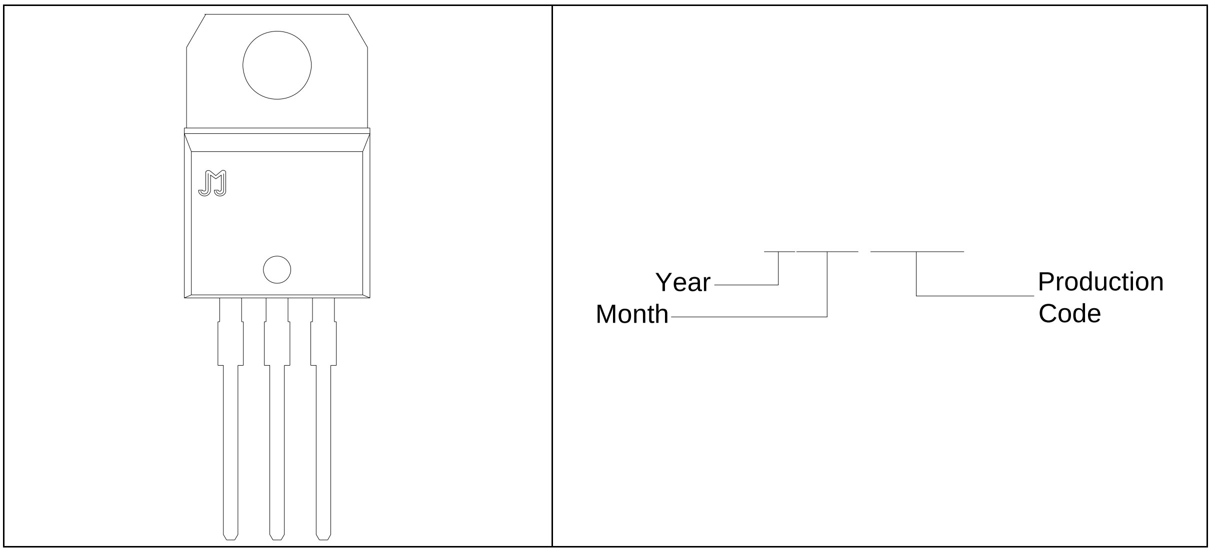
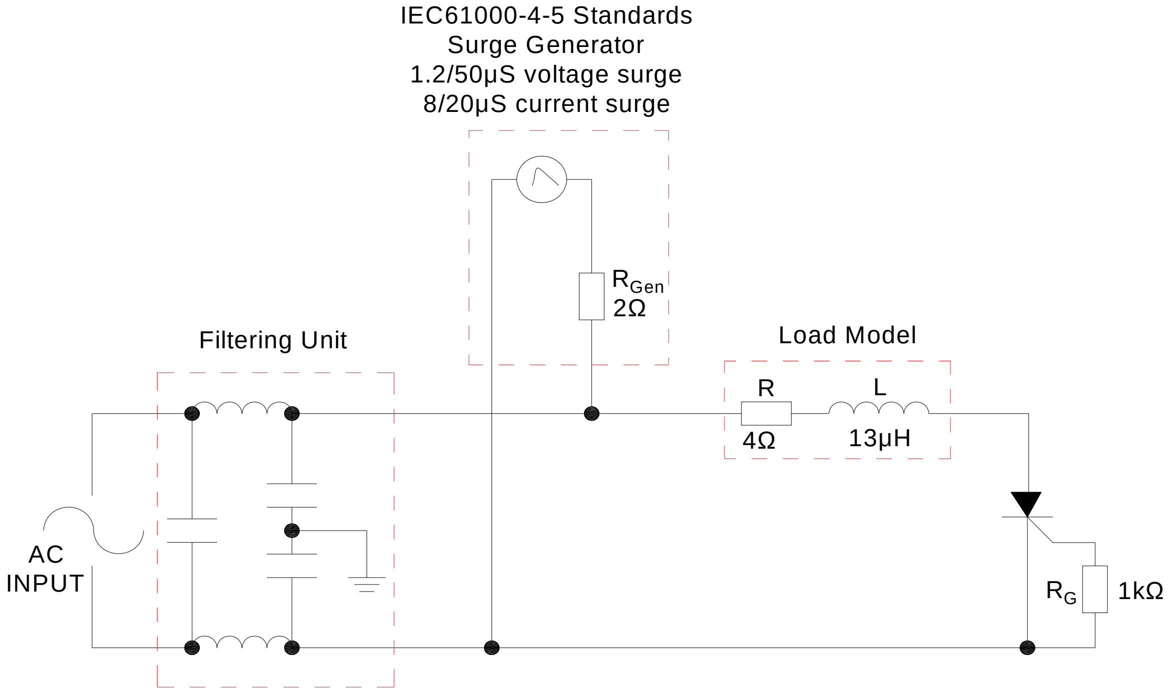


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.



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(μA)	Package	Base qty. (pcs)	Delivery mode
JX080A	800	≤200	TO-220A(Ins)	50	Tube

Document Revision History

Date	Revision	Changes
May.18, 2023	A.1.0	Last update

PACKAGE MECHANICAL DATA H1