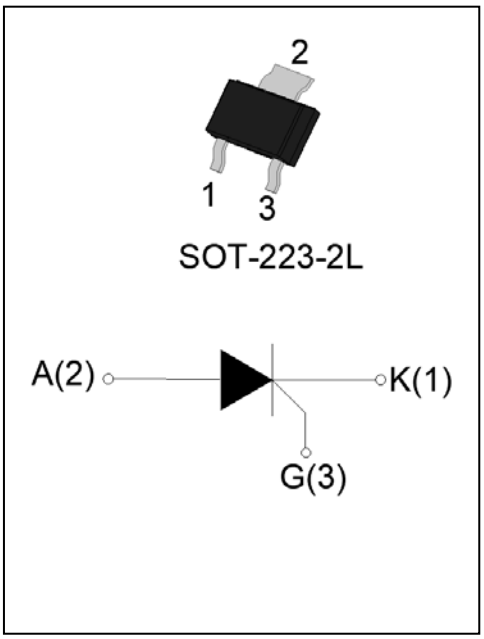
JX014W 1.25A Sensitive SCR

Rev.A.1.0

The JX014W 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-223-2L is RoHS compliant.



Symbol	Value	Unit
$I_{T(RMS)}$	1.25	A
V_{DRM} /V_{RRM}	1250	V
I_{GT}	≤200	μA

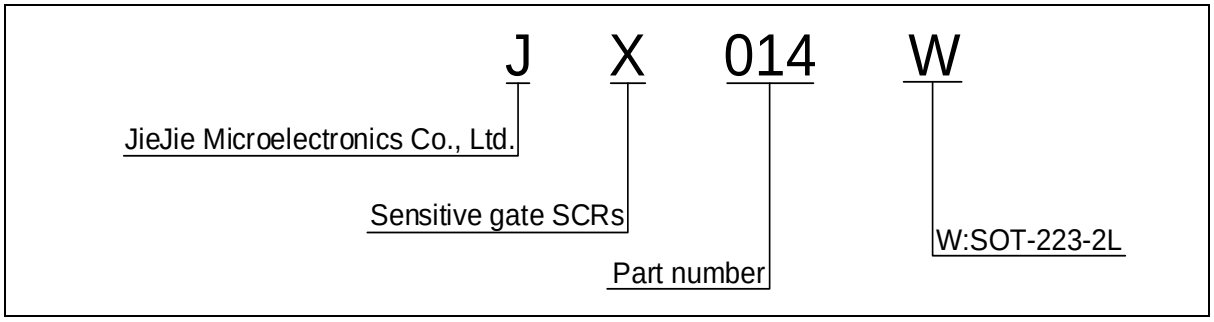
Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-110	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	1250	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	1250	V
Average on-state current (T_C 80)	$I_{T(AV)}$	0.8	A
RMS on-state current (T_C 80)	$I_{T(RMS)}$	1.25	A
Non repetitive surge peak on-state current (t_p=10ms , T_j=25)	I_{TSM}	25	A
Non repetitive surge peak on-state current (t_p=8.3ms , T_j=25)		28	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	3.1	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 (t_p=20μs, T_j=110)	I_{GM}	1.2	A
Average gate power dissipation (T_j=110)	$P_{G(AV)}$	0.2	W

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

unless otherwise specified

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	V_D=12V R_L=33Ω	-	50	200	μA
		-	0.6	0.8	V
		0.2	-	-	V
		-	-	5	mA
		-	-	4	mA
		400	-	-	V/μs
		1000	-	-	
		-	2	-	μs
		-	50	-	μs

	Value(MAX.)	Unit
	1.3	V
	0.8	V


J X 014 W
JieJie Microelectronics Co., Ltd.
Sensitive gate SCRs
Part number
W:SOT-223-2L

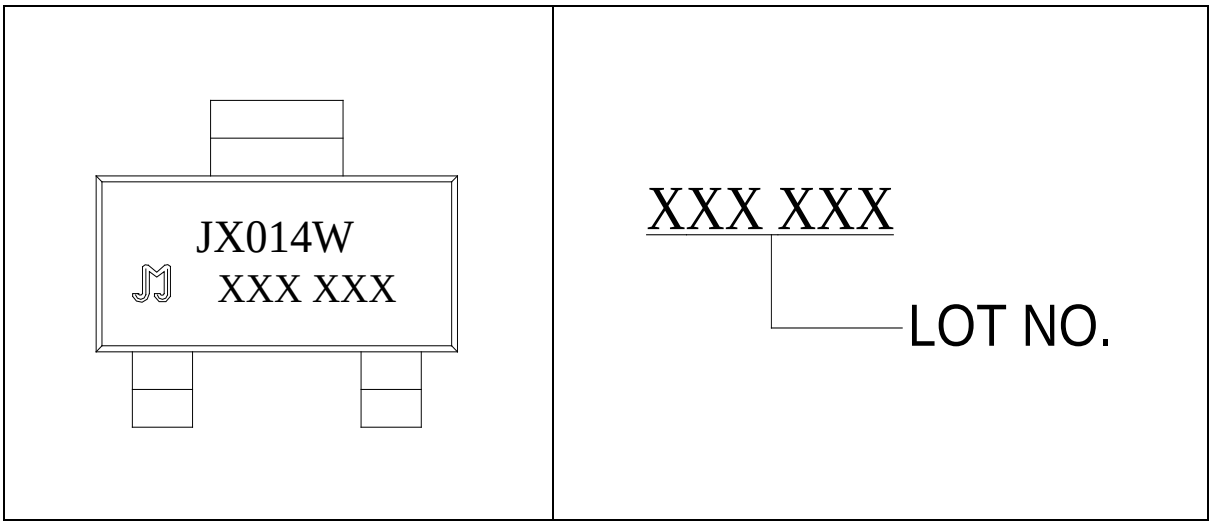

JX014W
XXX XXX
XXX XXX
LOT NO.

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

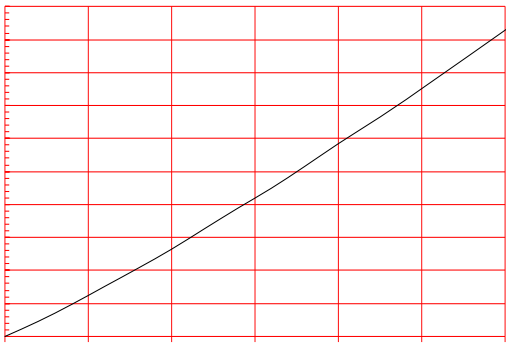
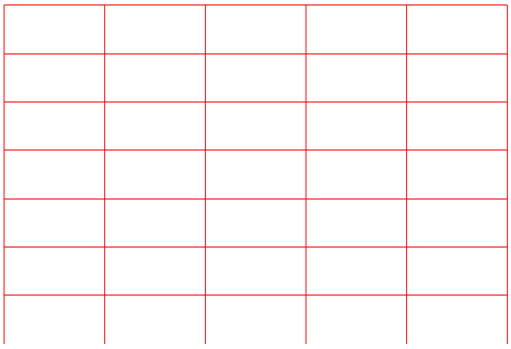
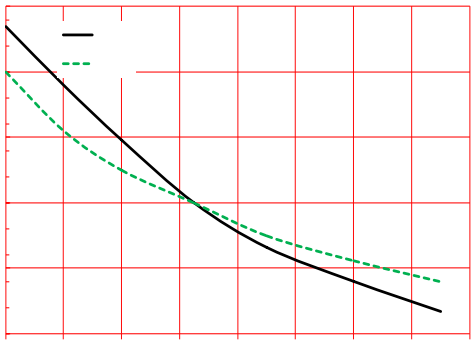


FIG.2: RMS on-state current versus case temperature



IT(RMS)(A)Ta(’-)

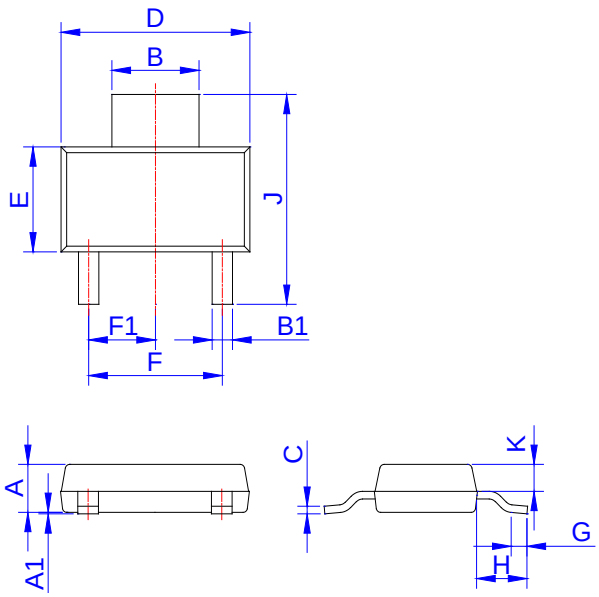
FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature



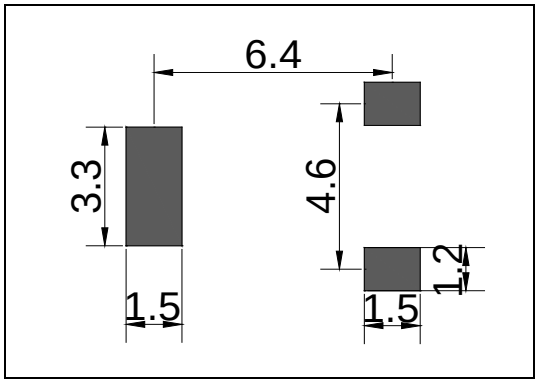
Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT)	Package	Base qty. (pcs)	Delivery mode
JX014W	1250	200	SOT-223-2L	4,000	Tape & Reel

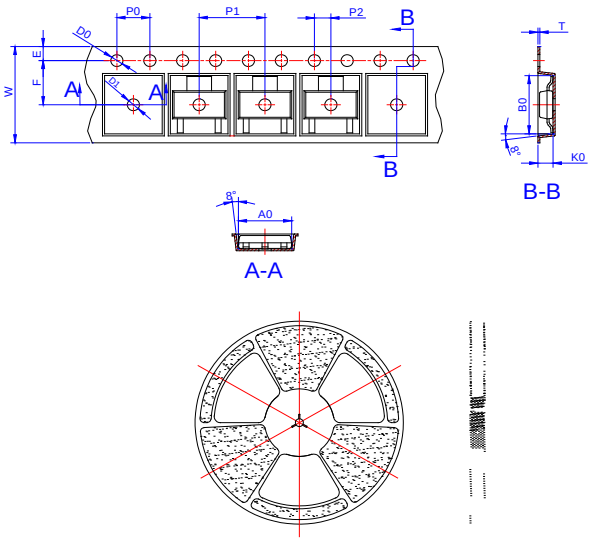
Document Revision History

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



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	1.50	1.60	1.80	0.059	0.063	0.071
A1	0.01	0.06	0.10	0.001	0.002	0.004
B	2.90	3.00	3.10	0.114	0.118	0.122
B1	0.60	0.70	0.80	0.024	0.028	0.031
C	0.22	0.254	0.32	0.009	0.010	0.013
D	6.30	6.50	6.70	0.248	0.256	0.264
E	3.30	3.50	3.70	0.130	0.138	0.146
F	4.40		4.80	0.173		0.189
F1	2.20		2.40	0.087		0.094
G	0.50		1.00	0.020		0.039
H	1.50	1.75	2.00	0.059	0.069	0.079
J	6.70	7.00	7.30	0.264	0.276	0.287
K	0.80		1.00	0.031		0.039





Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W	-	-	12.30	-		0.482
E	1.65	1.75	1.85	0.065	0.069	0.073
F	5.45	5.50	5.55	0.215	0.217	0.219
D0	1.50	1.55	1.60	0.059	0.061	0.063
D1	1.50	-	-	0.059	-	-
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	7.90	8.00	8.10	0.311	0.315	0.319
P2	1.95	2.00	2.05	0.077	0.079	0.081
10P0	39.80	40.00	40.20	1.567	1.575	1.583
A0	6.85	6.95	7.05	0.269	0.273	0.276
B0	7.15	7.25	7.35	0.280	0.284	0.288
K0	1.95	2.05	2.15	0.076	0.080	0.084
T	0.20	0.25	0.30	0.008	0.010	0.012