JR0105V 1A SCR

Average gate power	$P_{G(AV)}$	2	W
Peak gate forward voltage (T_j=25℃, t_p=20μs)	V_{FGM}	0.5	V

NOTE 1: Although the device is capable of operation at T_j up to 125℃, the leakage currents and gate controlled turn-on characteristics should be considered when operating at T_j above 110℃.

ELECTRICAL CHARACTERISTICS (T_j=25℃ unless otherwise noted)

Symbol	Test Conditions	Value			Unit
		MIN.	TYP.	MAX.	
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=125℃	0.2	-	-	V
I_L	I_G=1.2I_{GT}	-	-	3	mA
I_H	I_T=0.05A	-	-	2	mA
dV_D/dt	V_D=400V T_j=125℃ R_{GK}=1kΩ	50	-	-	V/μs
	V_D=400V T_j=125℃ R_{GK}=220Ω	250	-	-	
t_{gt}	I_G=10mA I_A=20mA I_R=2mA T_j=25℃	-	2	-	μs
t_{gt}		-	50	-	

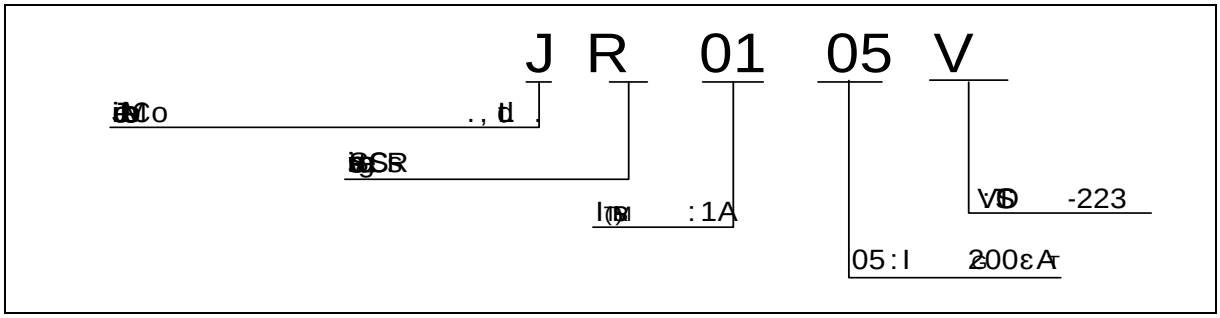
STATIC CHARACTERISTICS

Symbol	Parameter		Value (MAX.)	Unit
V_{TM}	I_{TM}=1.6A t_p=380μs	T_j=25℃	1.4	V
V_{TO}	Threshold voltage	T_j=125℃	0.77	V
R_D	Dynamic resistance	T_j=125℃	0.18	Ω
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25℃	5	μA
I_{RRM}		T_j=125℃	0.1	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	Junction to case (DC)	25	℃/W
$R_{th(j-a)}$	Junction to ambient (DC)	120	℃/W

ORDERING INFORMATION



MARKING

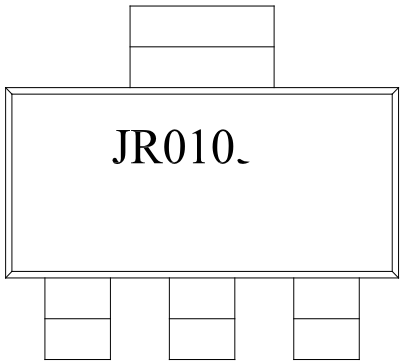


FIG.1: Maximum Forward Surge Current

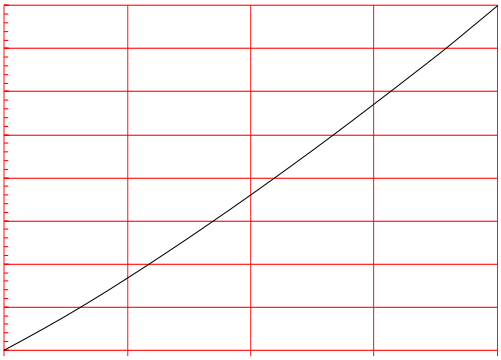
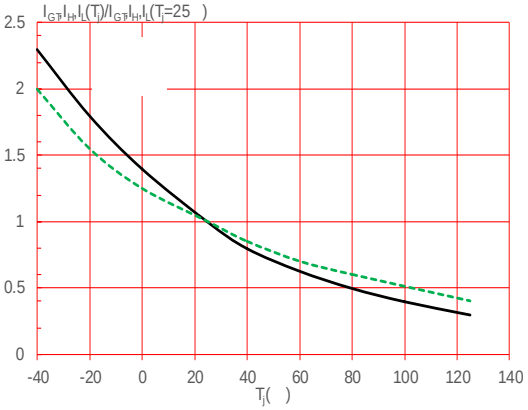
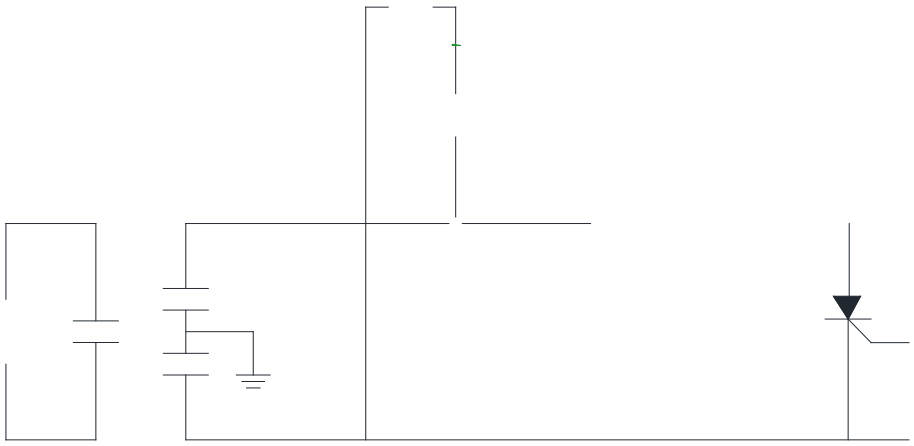


FIG.2: Typical Reverse Characteristics

FIG.7: Gate trigger current, holding current and latching current variation vs. junction temperature



Product meets IEC61000-4-5 standard



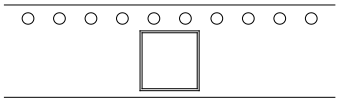
ORDERING INFORMATION

Order Code	Voltage V_{DRM}/V_{RRM} (V)	IGT (μA)	Package	Base Qty (pcs)	Delivery Mode
JR0105V	600	200	SOT-223	4000	Tape & Reel

Date Revision History

Date	Rev.	Change
Apr.10, 2023	A1.0	Initial
Oct.23, 2025	A1.1	Revise ARCHITECTURAL DATA

DELIVERY MODE





Ê	Dèn					
	èM			è		
	èM	ÿ	èM	èM	ÿ	èM
W	-		12.30	-		0.482
E	1.65	1.75	1.85	0.065	0.069	0.073
	5.45	5.50	5.55	0.215	0.217	0.219
D0		1.55	1.60		0.061	0.063
D1		-	-			
Ð	3.90	4.00	4.10	0.154	0.157	0.161
Ð	7.90	8.00	8.10	0.311	0.315	0.319
Ð	1.95	2.00	2.05	0.077	0.079	0.081
10Ð	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
Ê	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

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