

GSDCRDxxAF Series

Current Regulative Diode

Product Description

Breakdown Voltage 190V.
Current 20 to 80 mA


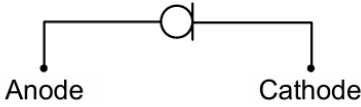
Features

- High Stability
- High Efficiency
- Low Starting Voltage
- Negative Temperature Coefficient

Mechanical Data

- SMA (DO-214AC) Package
- The Color Band denotes Cathode End
- RoHS Compliant and Halogen Free

Package and Pin Assignment

SMA (DO-214AC)		Equivalent Circuit	
			
Pin	Description	Pin	Description
1	Anode	2	Cathode

Ordering and Marking Information

Ordering Information				
Part Number	Marking Code	I _P (mA)	Package	Quantity/Reel
GSDCRD20AF	CRD20A	20	SMA (DO-214AC)	5,000 PCS
GSDCRD40AF	CRD40A	40		
GSDCRD60AF	CRD60A	60		
GSDCRD80AF	CRD80A	80		

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Symbol	Parameter	Value	Unit
V _B ¹	Breakdown Voltage	190	V
P _D	Maximum Power Dissipation	1200	mW
T _J	Operating Junction Temperature Range	-55 to +150	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Description	CRD20	CRD40	CRD60	CRD80	Unit
I _P ²	Maximum Pinch-Off Current	24	44	66	88	mA
	Typical Pinch-Off Current	20	40	60	80	
	Minimum Pinch-Off Current	16	36	54	72	
V _K ³	Maximum Constant Current Starting Voltage	3.5	6	7	8	V

NOTE:

1. Test Conditions: V_B @ 1.1I_{Pmax}
2. Test Conditions: I_P @ 20V
3. Test Conditions: V_K @ 0.8I_{Pmin}

Typical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

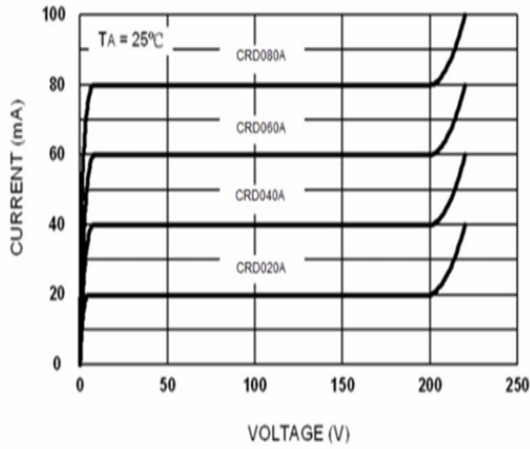


FIG.1 I-V Characteristics

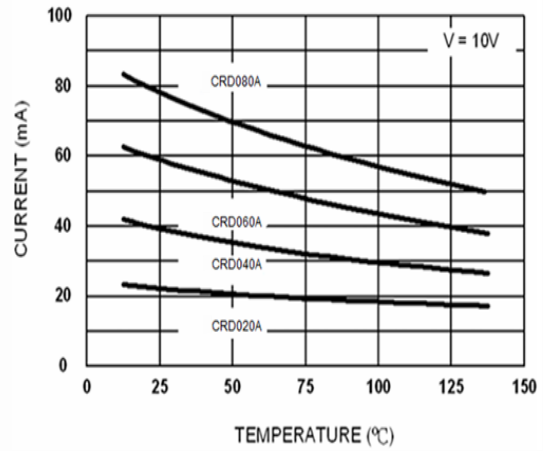


FIG.2 Temperature Coefficients

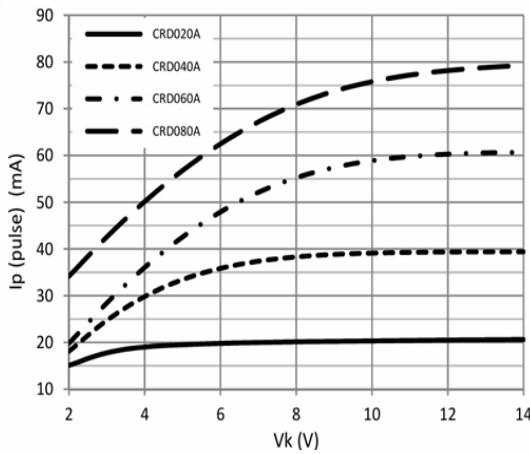


FIG.3 I_P - V_K (Pulse & $T_A=25^\circ\text{C}$)

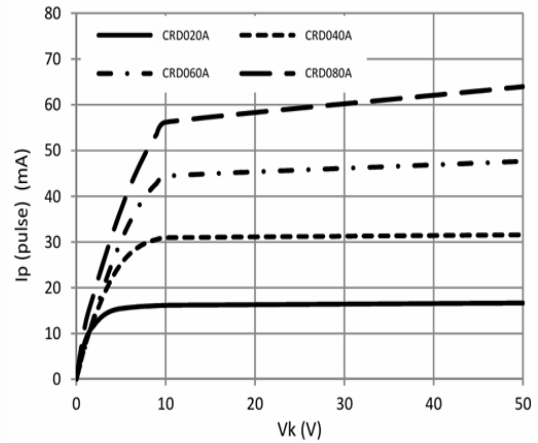


FIG.4 I_P - V_K (Pulse & $T_A=85^\circ\text{C}$)

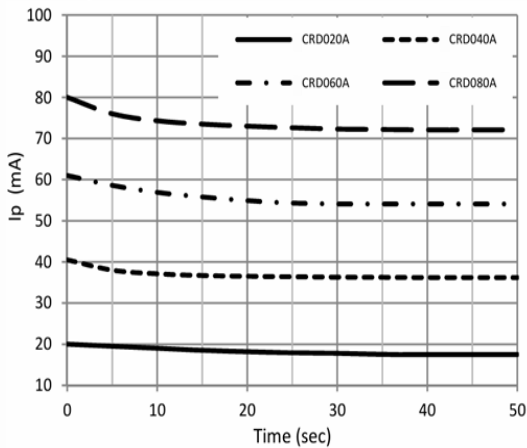
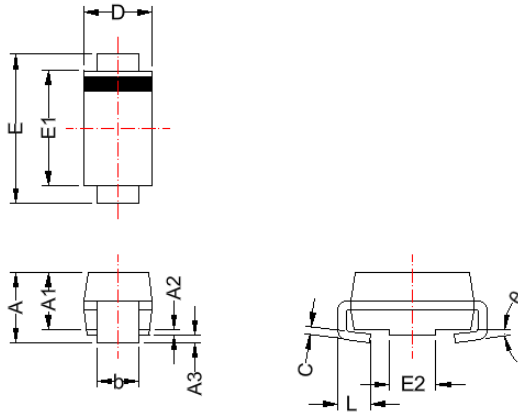


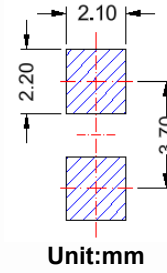
FIG.5 I_P vs Time ($V_K=20\text{V}$)

SMA (DO-214AC)

Package Dimension



Recommended Land Pattern



Dimensions				
Symbol	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	1.90	2.90	0.075	0.114
A1	1.70	2.70	0.067	0.106
A2	---	0.20	---	0.008
A3	---	0.30	---	0.012
b	1.20	1.70	0.047	0.067
c	0.14	0.41	0.006	0.016
D	2.18	2.95	0.086	0.116
E	4.70	5.60	0.185	0.220
E1	3.90	4.60	0.154	0.181
E2	1.40	1.90	0.055	0.075
L	0.75	1.6	0.030	0.063
theta	0°	8°	0°	8°





NOTE:



Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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