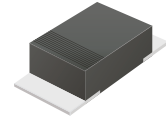


## CGRM4001-HF Thru. CGRM4007-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

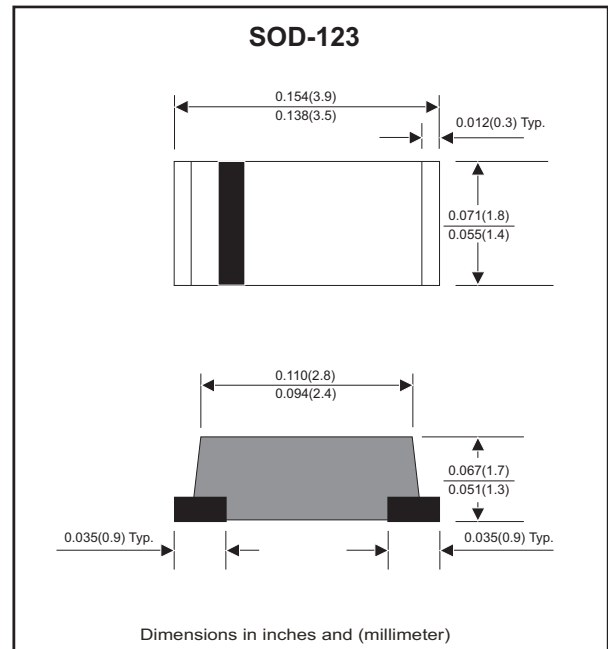


### Features

- Halogen free.
- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- Exceeds environmental standard MIL-S-19500/228.
- Low leakage current.

### Mechanical data

- Case: Molded plastic, JEDEC SOD-123/Mini SMA.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.027 grams approx.



### Maximum Ratings (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	CGRM 4001-HF	CGRM 4002-HF	CGRM 4003-HF	CGRM 4004-HF	CGRM 4005-HF	CGRM 4006-HF	CGRM 4007-HF	Unit
Max. repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Max. DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Max. RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Max. averaged forward current	$I_o$	1.0							A
Maximum Instantaneous forward voltage at $I_F=1.0A$	$V_F$	1.1							V
Forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							A
Reverse current at rated @ $T_A=25^{\circ}\text{C}$ DC blocking voltage @ $T_A=100^{\circ}\text{C}$	$I_R$	5 50							$\mu\text{A}$
Thermal resistance, junction to ambient air	$R_{\theta JA}$	60							$^{\circ}\text{C/W}$
Operating junction temperature	$T_J$	-55 to +150							$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-65 to +170							$^{\circ}\text{C}$
Junction capacitance $f=1\text{MHz}$ and applied 4V DC reverse voltage	$C_J$	15							pF

## Rating and Characteristic Curves (CGRM4001-HF Thru. CGRM4007-HF)

Fig.1 Reverse Characteristics

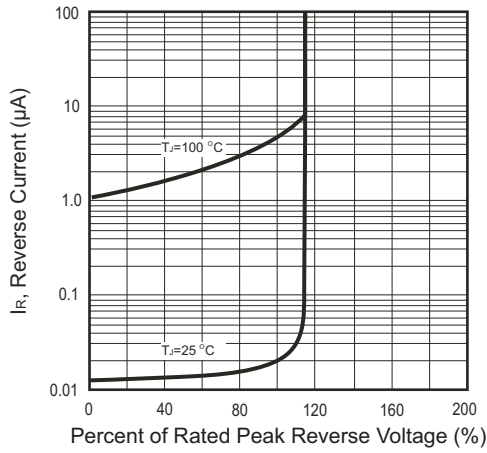


Fig.2 Forward Characteristics

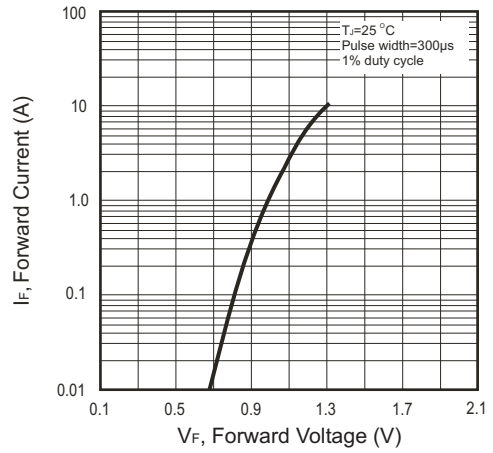


Fig.3 Junction Capacitance

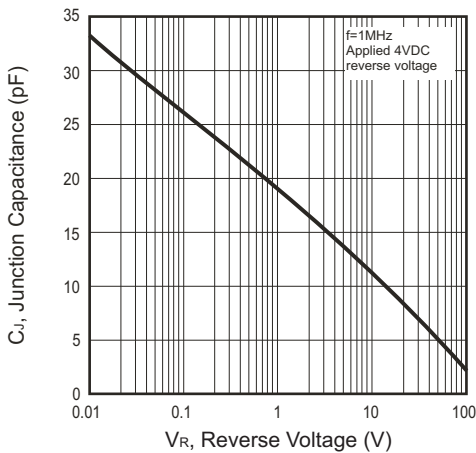


Fig.4 Current Derating Curve

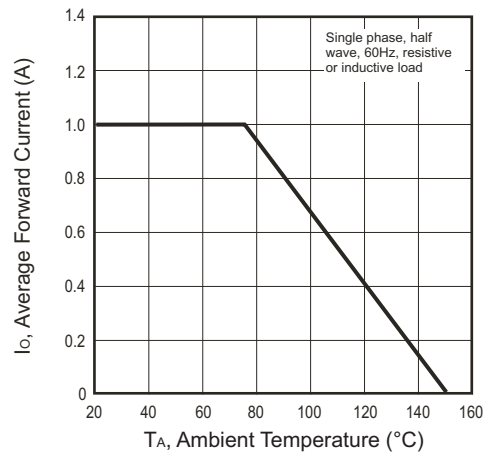
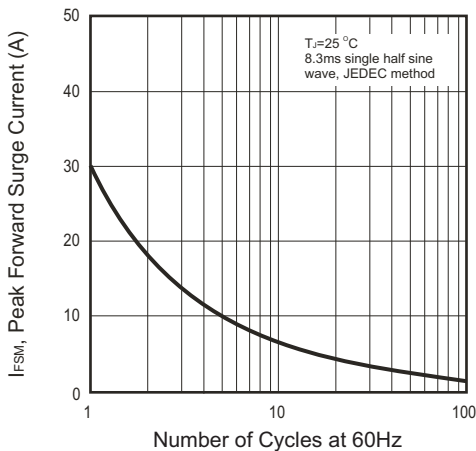
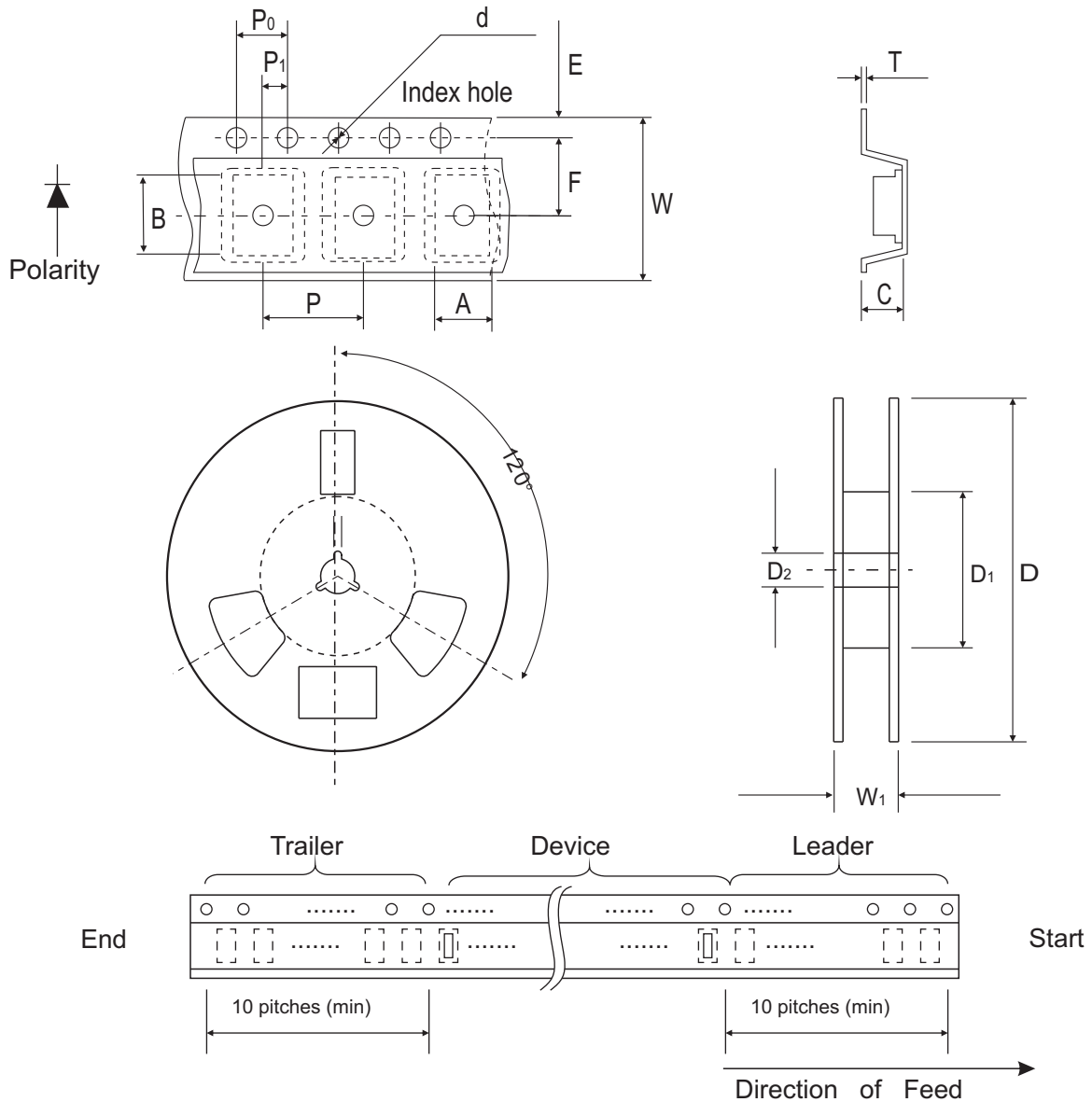


Fig.5 Non-repetitive Forward Surge Current



## Reel Taping Specification



Mini-SMA/SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$1.90 \pm 0.10$	$3.90 \pm 0.10$	$1.68 \pm 0.10$	$1.50 \pm 0.10$	$178 \pm 2.00$	62.0 MIN.	$13.0 \pm 0.50$
	(inch)	$0.075 \pm 0.04$	$0.153 \pm 0.04$	$0.066 \pm 0.04$	$0.059 \pm 0.004$	$7.00 \pm 0.079$	2.440 MIN.	$0.512 \pm 0.020$

Mini-SMA/SOD-123	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.10$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	$0.23 \pm 0.10$	$8.00 \pm 0.30$	$11.4 \pm 0.10$
	(inch)	$0.689 \pm 0.004$	$0.138 \pm 0.004$	$0.157 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.004$	$0.009 \pm 0.004$	$0.315 \pm 0.011$	$0.449 \pm 0.004$

## Marking Code

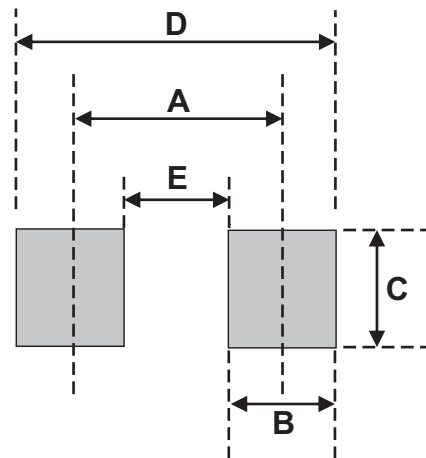
Part Number	Marking Code
CGRM4001-HF	A1
CGRM4002-HF	A2
CGRM4003-HF	A3
CGRM4004-HF	A4
CGRM4005-HF	A5
CGRM4006-HF	A6
CGRM4007-HF	A7



xx = Product type marking code

## Suggested PAD Layout

SIZE	Mini-SMA/SOD-123	
	(mm)	(inch)
A	3.30	0.130
B	1.40	0.055
C	1.90	0.075
D	4.70	0.185
E	1.90	0.075



## Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
Mini-SMA/SOD-123	2500	7