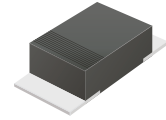


## CGRM4001-G Thru. CGRM4007-G

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

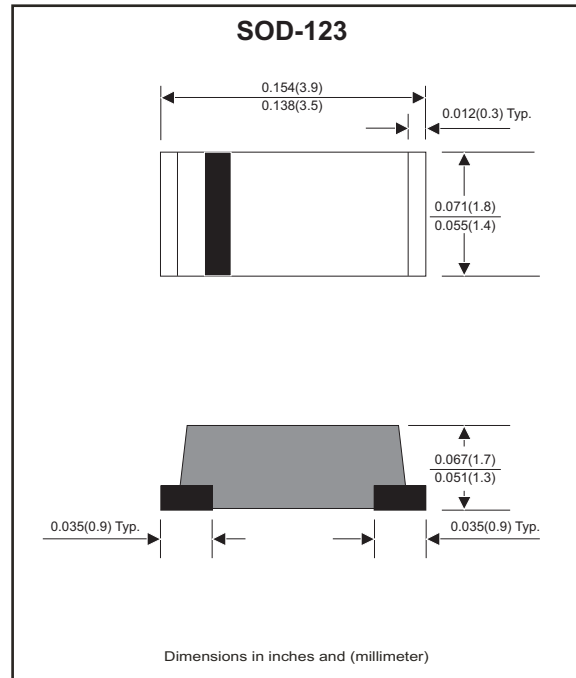


### Features

- 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-G	CGRM 4002-G	CGRM 4003-G	CGRM 4004-G	CGRM 4005-G	CGRM 4006-G	CGRM 4007-G	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-G Thru. CGRM4007-G)

Fig.1 Reverse Characteristics

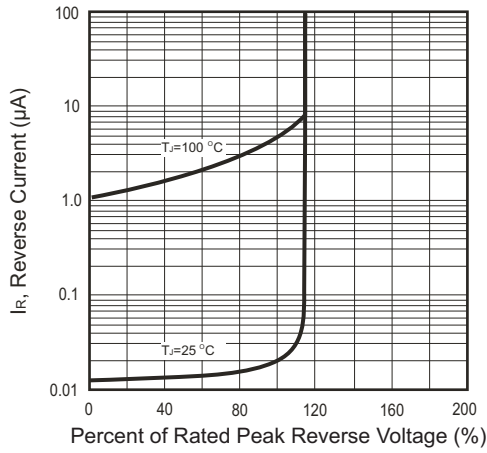


Fig.2 Forward Characteristics

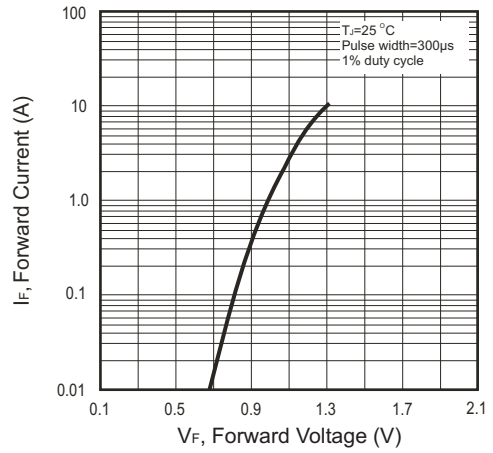


Fig.3 Junction Capacitance

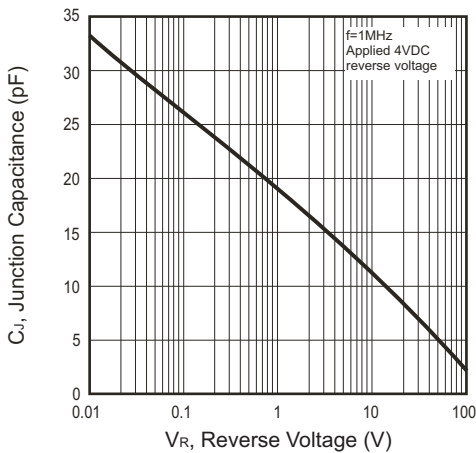


Fig.4 Current Derating Curve

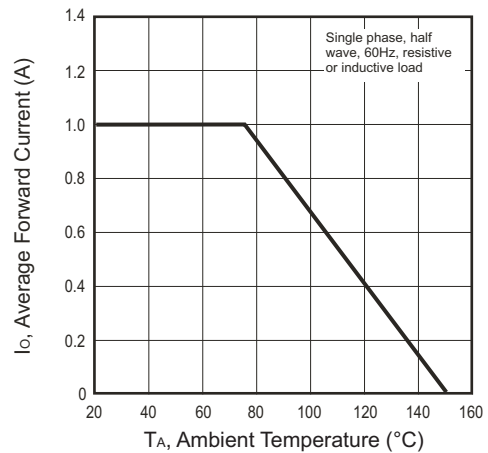
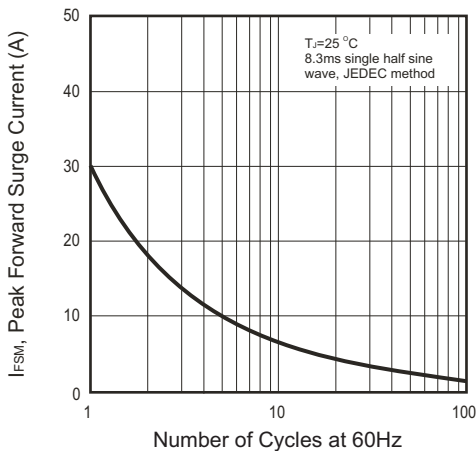
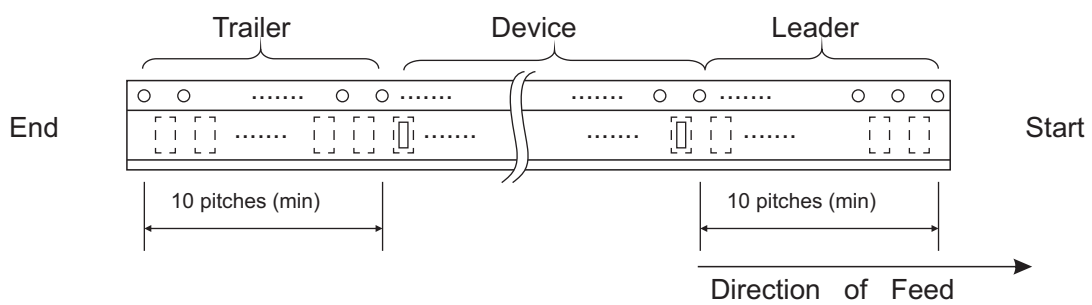
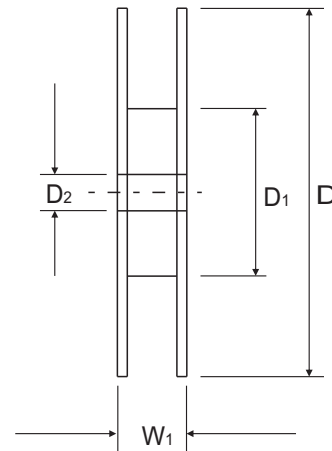
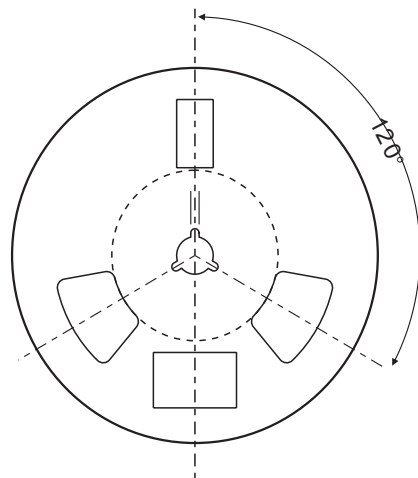
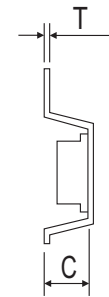
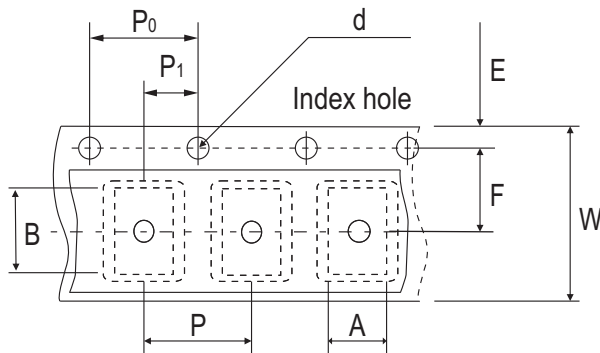


Fig.5 Non-repetitive Forward Surge Current



## Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$1.90 \pm 0.10$	$3.90 \pm 0.10$	$1.68 \pm 0.10$	$1.50 \pm 0.05$	$178 \pm 1.00$	62.0 MIN.	$13.0 \pm 0.50$
	(inch)	$0.075 \pm 0.04$	$0.154 \pm 0.04$	$0.066 \pm 0.04$	$0.059 \pm 0.002$	$7.008 \pm 0.039$	2.441 MIN.	$0.512 \pm 0.020$

SOD-123	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	$8.00 \pm 0.30$	$11.4 \pm 1.00$
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.002$	$0.157 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.004$	$0.315 \pm 0.012$	$0.449 \pm 0.039$

## Marking Code

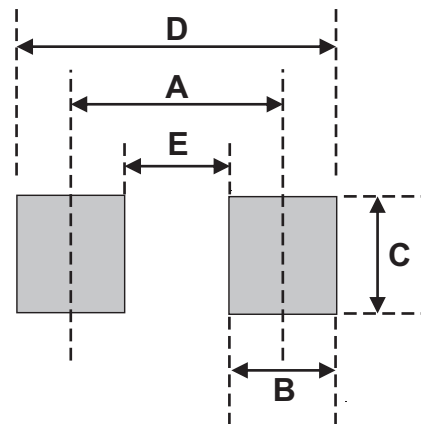
Part Number	Marking Code
CGRM4001-G	A1
CGRM4002-G	A2
CGRM4003-G	A3
CGRM4004-G	A4
CGRM4005-G	A5
CGRM4006-G	A6
CGRM4007-G	A7



xx = Product type marking code

## Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	3.80	0.150
B	1.40	0.055
C	1.90	0.075
D	5.70	0.225
E	1.90	0.075



## Standard Packaging

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOD-123	2,500	7