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[CGRMT4001-HF](#)

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Low Profile SMD General Purpose Rectifiers **Comchip** SMD Diode Specialist

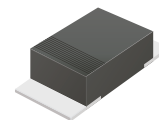
CGRMT4001-HF Thru. CGRMT4007-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

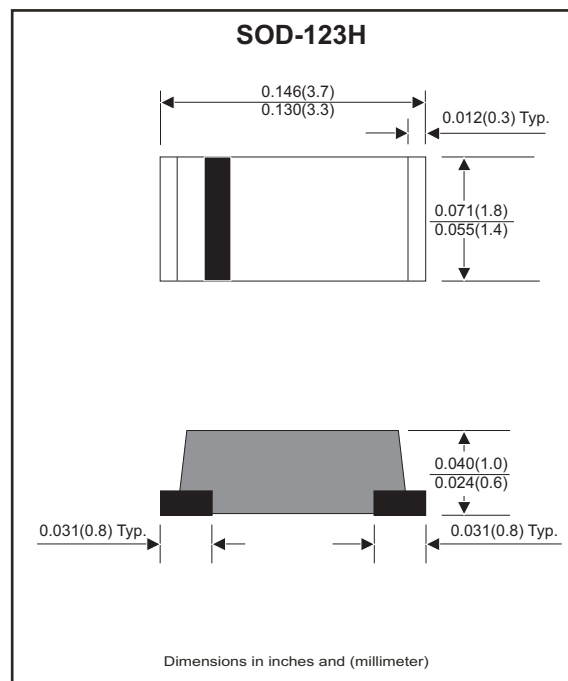


Features

- Excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile package is 40% thinner than standards SOD-123 .
- Tiny plastic SMD package.
- High current capability.
- High surge capability.
- Glass passivated chip junction.
- Lead-free parts meet environmental standards of MIL-STD-19500/228

Mechanical data

- Epoxy: UL94-V0 rated flame retardant.
- Case: Molded plastic, SOD-123H/MINI SMA
- Terminals: Solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position: any
- Weight: 0.011 grams approx.



Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter		Symbol	CGRMT 4001-HF	CGRMT 4002-HF	CGRMT 4003-HF	CGRMT 4004-HF	CGRMT 4005-HF	CGRMT 4006-HF	CGRMT 4007-HF	Unit
Max. repetitive peak reverse voltage		V _{RRM}	50	100	200	400	600	800	1000	V
Max. Continuous reverse voltage		V _R	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
Max. Forward voltage @ I _F =1.0A		V _F	1.1							V
Max. Forward surge current 8.3ms singe half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	25							A
Max. Reverse current	V _R =V _{RRM} T _J =25°C	I _R	5.0							μA
	V _R =V _{RRM} T _J =100°C		50							
Typ. Thermal resistance, junction to ambient air		R _{θJA}	60							°C/W
Typ. Junction capacitance f=1MHz and applied 4V DC reverse voltage		C _J	15							pF
Operating junction temperature		T _J	-55 to +150							°C
Storage temperature range		T _{STG}	-65 to +175							°C

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Rating and Characteristic Curves (CGRMT4001-HF Thru. CGRMT4007-HF)

Fig.1- Typical Forward Current Derating Curve

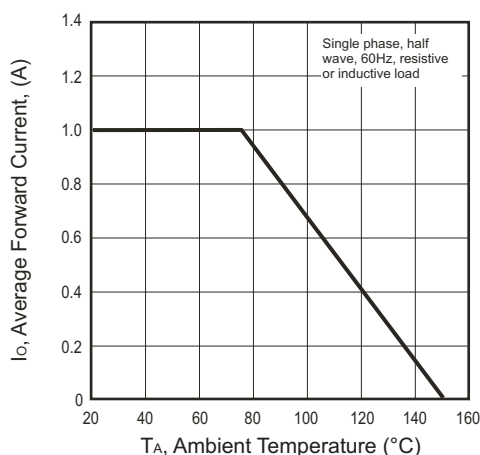


Fig.1- Typical Forward Characteristics

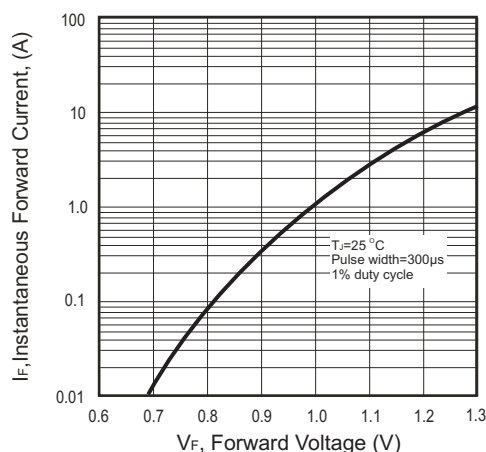


Fig.3- Typical Reverse Characteristics Forward Surge Current

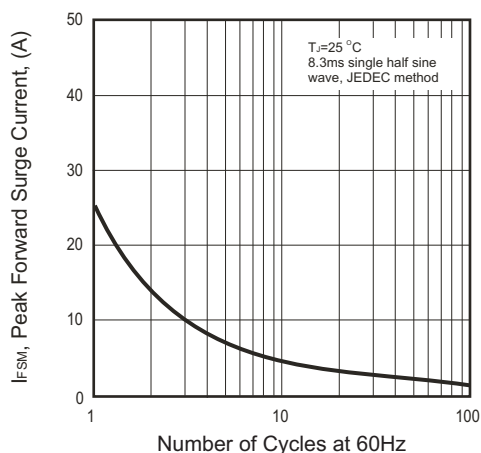


Fig.4- Typical Junction Capacitance

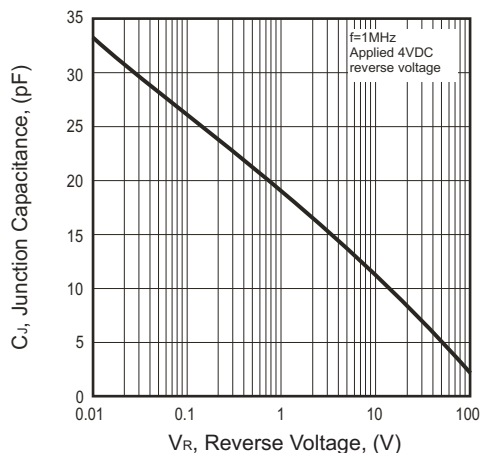
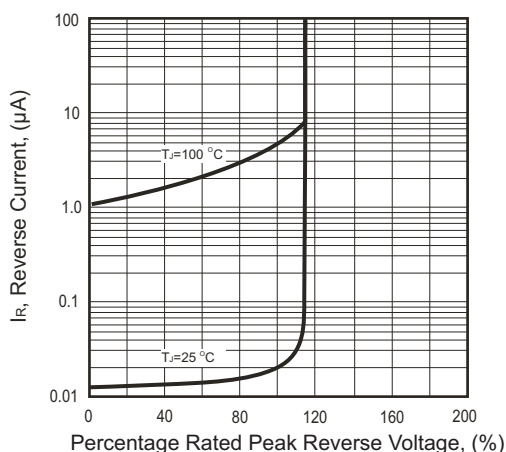
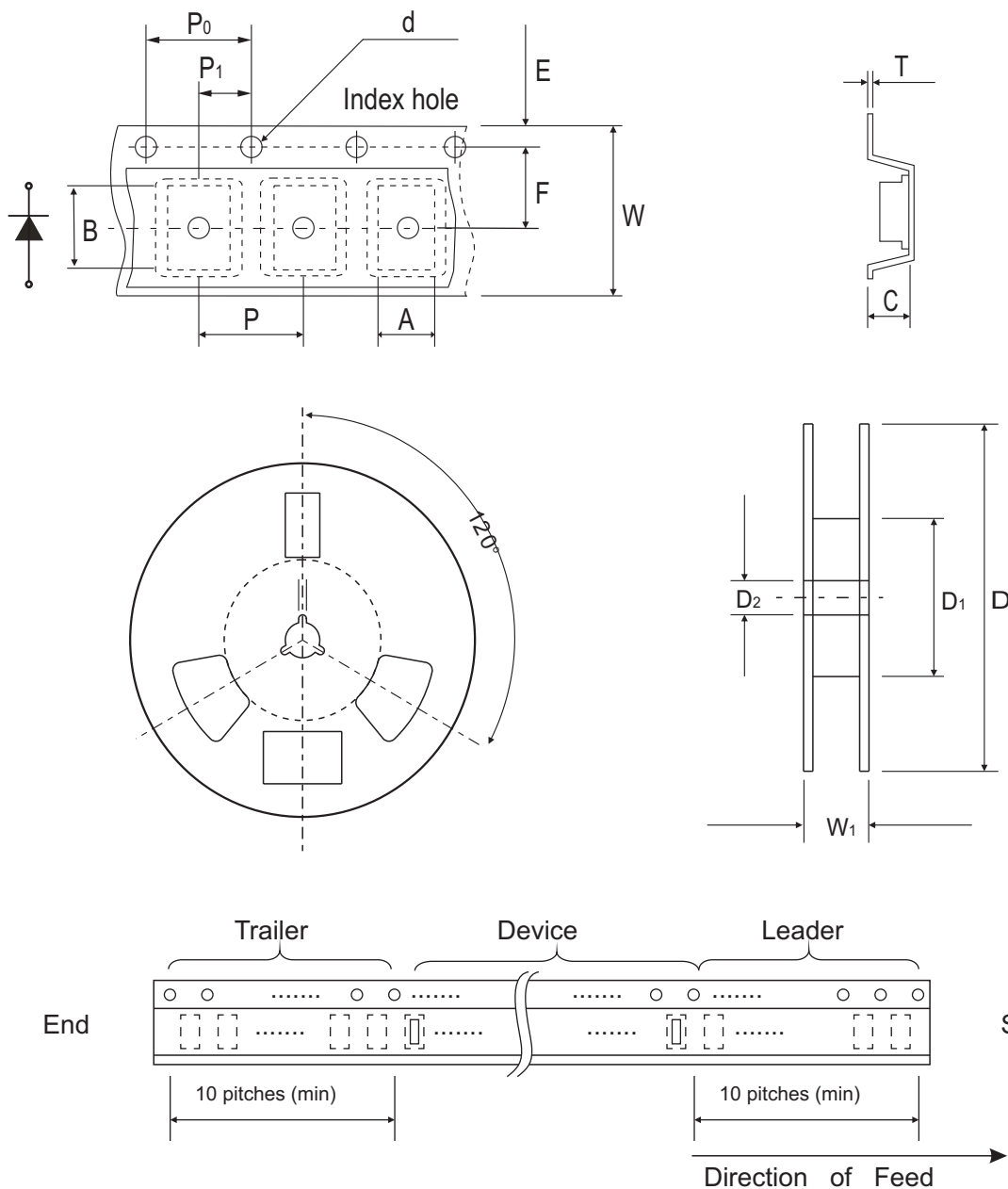


Fig.5- Maximum Non-repetitive



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Reel Taping Specification



SOD-123H	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.00 ± 0.10	3.85 ± 0.10	1.10 ± 0.10	1.50 ± 0.10	178 ± 2.00	62.0 MIN.	13.0 ± 0.50
	(inch)	0.079 ± 0.004	0.152 ± 0.004	0.043 ± 0.004	0.059 ± 0.004	7.00 ± 0.079	2.440 MIN.	0.512 ± 0.020

SOD-123H	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.10	8.00 ± 0.30	11.40 ± 1.0
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.004	0.315 ± 0.012	0.449 ± 0.039

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Pinning information

Pin	Simplified outline	Symbol
PIN 1 Cathode PIN 2 Anode		

Marking Code

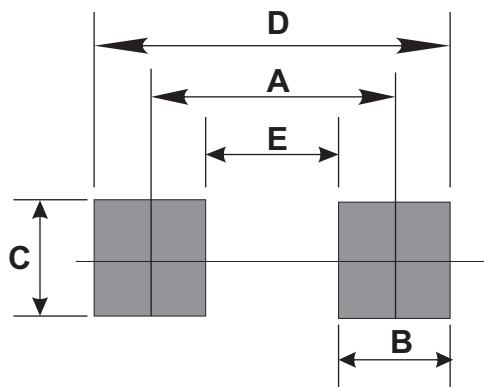
Part Number	Marking Code
CGRMT4001-HF	A1
CGRMT4002-HF	A2
CGRMT4003-HF	A3
CGRMT4004-HF	A4
CGRMT4005-HF	A5
CGRMT4006-HF	A6
CGRMT4007-HF	A7



xx = Product type marking code

Suggested PAD Layout

SIZE	SOD-123H	
	(mm)	(inch)
A	3.00	0.118
B	1.30	0.051
C	1.80	0.071
D	4.30	0.169
E	1.70	0.067



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123H	3,000	7