

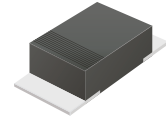
## CDBM240-HF Thru CDBM2200-HF

Reverse Voltage: 40 to 200 Volts

Forward Current: 2.0 Amp

RoHS Device

Halogen free

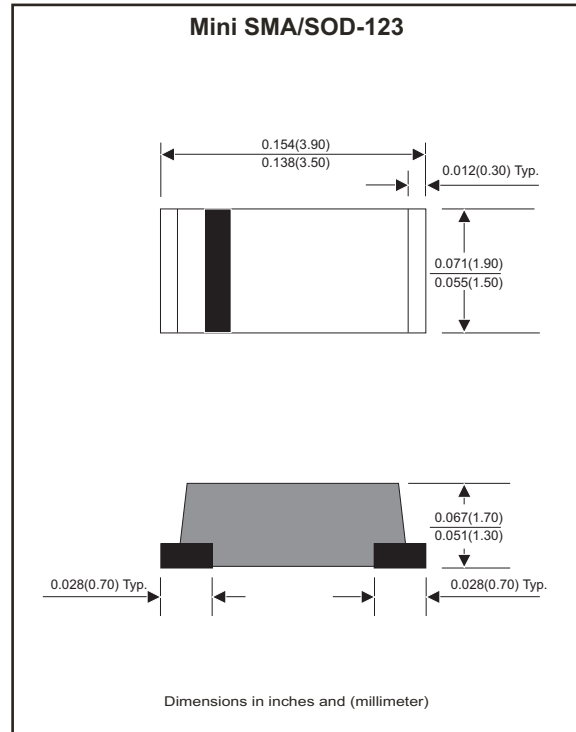


### Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Tiny plastic SMD package.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### Mechanical data

- Epoxy: UL94-V0 rated flame retardant.
- Case: Molded plastic, JEDEC Mini SMA/SOD-123.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight: 0.018 gram (approx.).



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

Parameter	Symbol	CDBM 240-HF	CDBM 260-HF	CDBM 2100-HF	CDBM 2150-HF	CDBM 2200-HF	Unit
Repetitive peak reverse voltage	V <sub>RRM</sub>	40	60	100	150	200	V
Maximum RMS voltage	V <sub>RMS</sub>	28	42	70	105	140	V
Continuous reverse voltage	V <sub>R</sub>	40	60	100	150	200	V
Forward voltage @I <sub>F</sub> =2.0A	V <sub>F</sub>	0.50	0.70	0.85	0.90	0.92	V
Forward rectified current	I <sub>O</sub>	2.0					A
Forward surge current, 8.3ms half sine wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	50					A
Reverse current on V <sub>R</sub> =V <sub>RRM</sub> @T <sub>A</sub> =25°C @T <sub>A</sub> =100°C	I <sub>R</sub>	0.5 10					mA
Typ. thermal resistance, junction to ambient air	R <sub>θJA</sub>	85					°C/W
Typ. diode junction capacitance (Note 1)	C <sub>J</sub>	160					pF
Operating junction temperature	T <sub>J</sub>	-55 to +125		-55 to +150			°C
Storage temperature	T <sub>STG</sub>	-65 to +175					°C

Note 1: f=1MHz and applied 4V DC reverse voltage.

Company reserves the right to improve product design, functions and reliability without notice.

REV:B

## Rating and Characteristic Curves (CDBM240-HF Thru CDBM2200-HF)

Fig.1-Typical forward current current derating curve

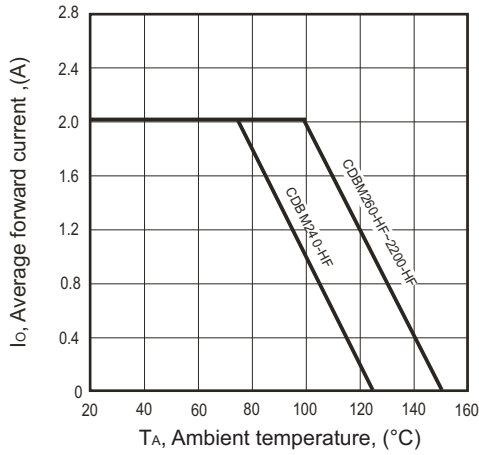


Fig.2-Typical forward characteristics

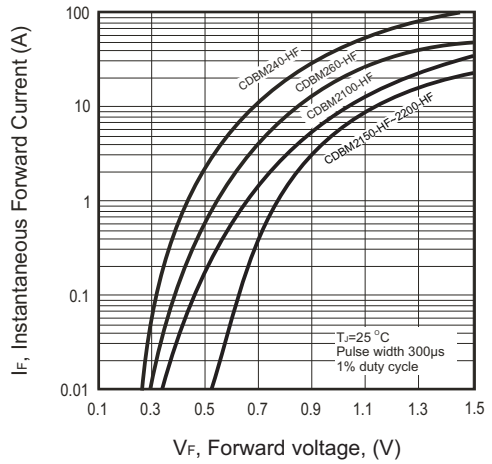


Fig.3 - Maximum non-repetitive forward surge current

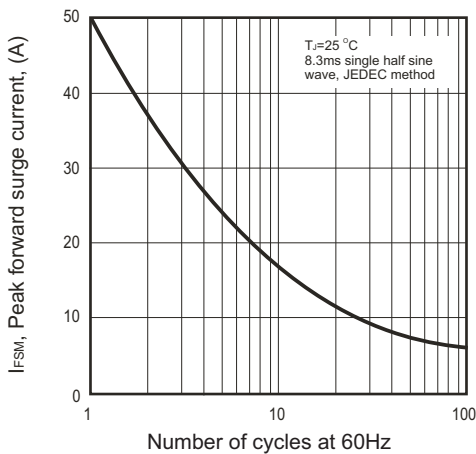


Fig.4-Typical junction capacitance

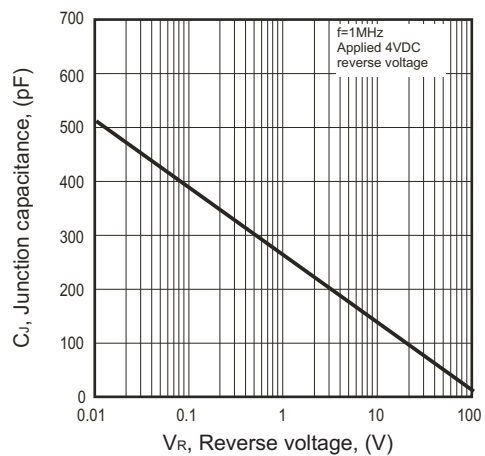
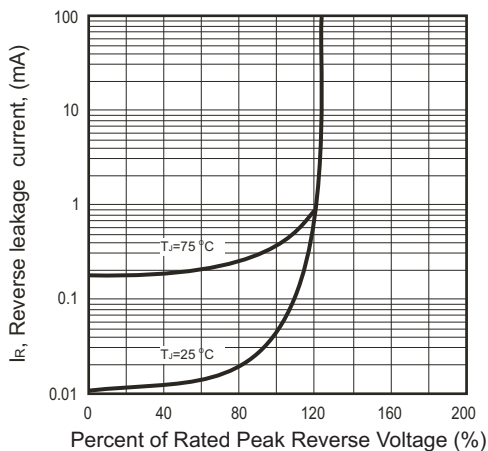
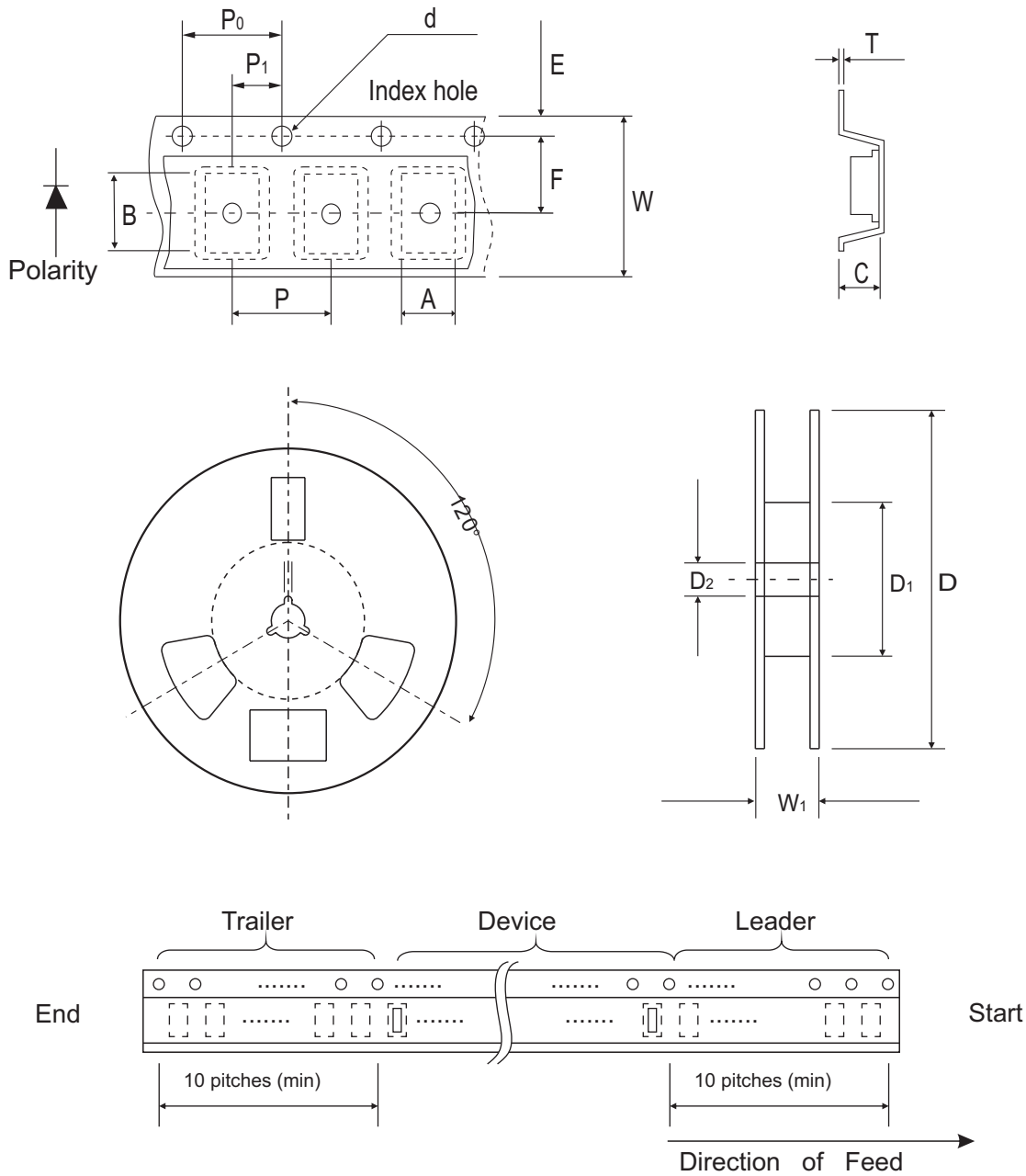


Fig.5 - Typical reverse characteristics



## Reel Taping Specification



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

	SYMBOL	E	F	P	P0	P1	T	W	W1
Mini-SMA/SOD-123	(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	14.4 ± 0.10
	(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 ± 0.011	0.567 ± 0.004

## Marking Code

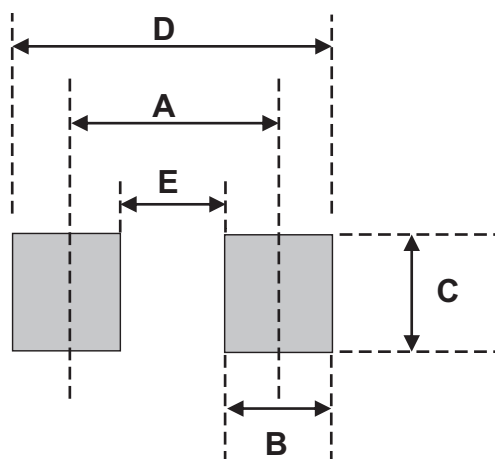
Part Number	Marking Code
CDBM240-HF	24
CDBM260-HF	26
CDBM2100-HF	20
CDBM2150-HF	215
CDBM2200-HF	220



xx/xxx = 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 Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
Mini-SMA /SOD-123	2,500	7

# Mouser Electronics

Authorized Distributor

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