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SMD Schottky Barrier Rectifiers

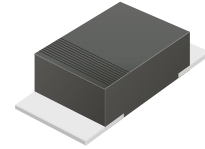


CDBM240-G Thru. CDBM2200-G

Reverse Voltage: 40 to 200 Volts

Forward Current: 2.0 Amp

RoHS Device

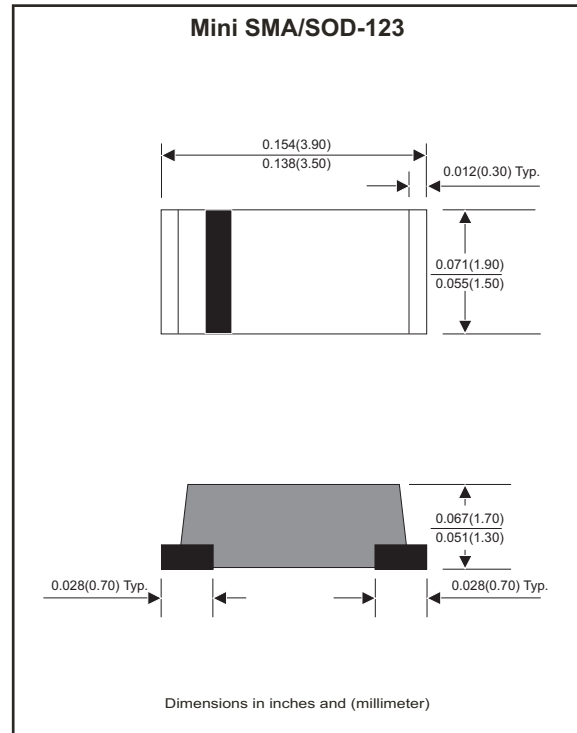


Features

- 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 over voltage 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: Solde plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight:0.018 gram(approx.).



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

Parameter	Symbol	CDBM 240-G	CDBM 260-G	CDBM 2100-G	CDBM 2150-G	CDBM 2200-G	Unit
Repetitive peak reverse voltage	V_{RRM}	40	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	42	70	105	140	V
Continuous reverse voltage	V_R	40	60	100	150	200	V
Forward voltage @ $I_F=2.0A$	V_F	0.50	0.70	0.85	0.90	0.92	V
Forward rectified current	I_o	2.0					A
Forward surge current, 8.3ms half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	50					A
Reverse current on $V_R=V_{RRM}$ @ $T_A=25^{\circ}\text{C}$ @ $T_A=100^{\circ}\text{C}$	I_R	0.5 10					mA
Typ. thermal resistance, junction to ambient air	$R_{\theta JA}$	85					$^{\circ}\text{C}/\text{W}$
Typ. diode junction capacitance (Note 1)	C_J	160					pF
Operating junction temperature	T_J	-55 to +125	-55 to +150				$^{\circ}\text{C}$
Storage temperature	T_{STG}	-65 to +175					$^{\circ}\text{C}$

Note 1: $f=1\text{MHz}$ and applied 4V DC reverse voltage.

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Rating and Characteristic Curves (CDBM240-G Thru. CDBM2200-G)

Fig.1-Typical forward current current derating curve

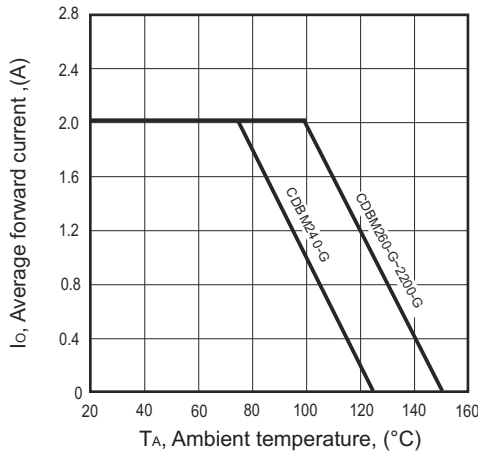


Fig.2-Typical forward characteristics

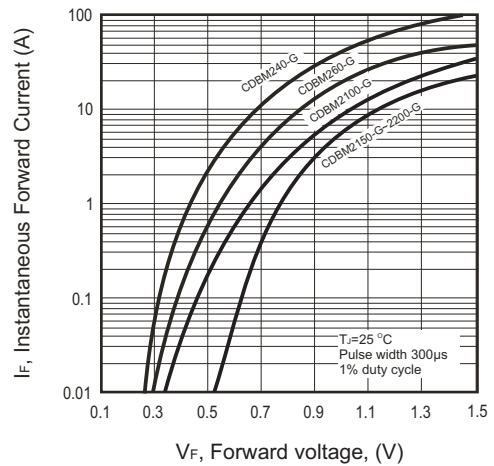


Fig.3 - Maximum non-repetitive forward surge current

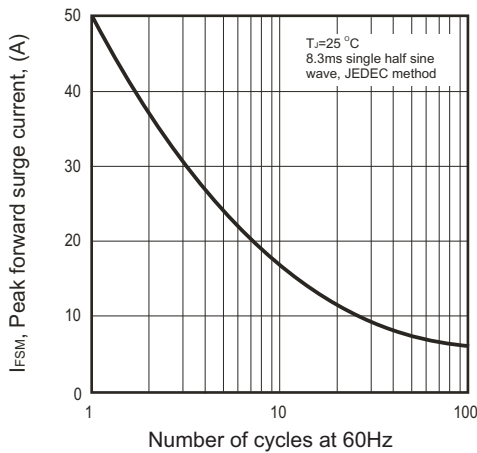


Fig.4-Typical junction capacitance

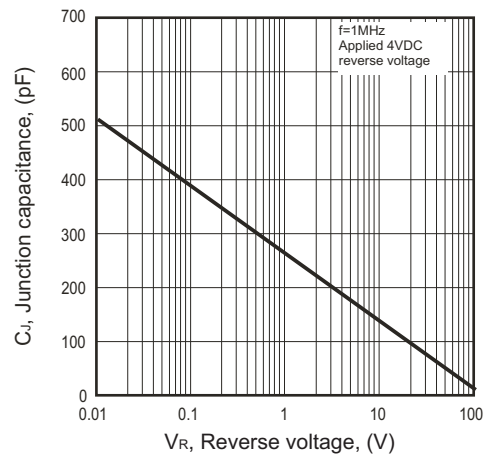
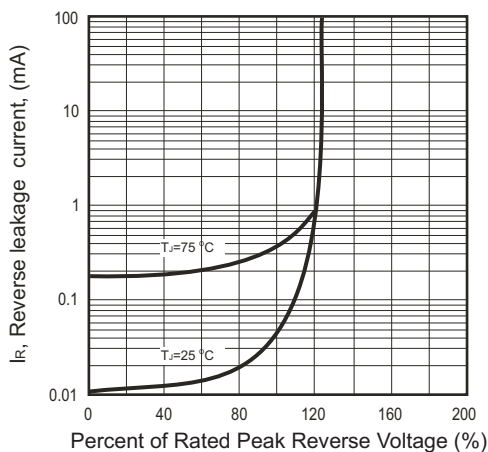


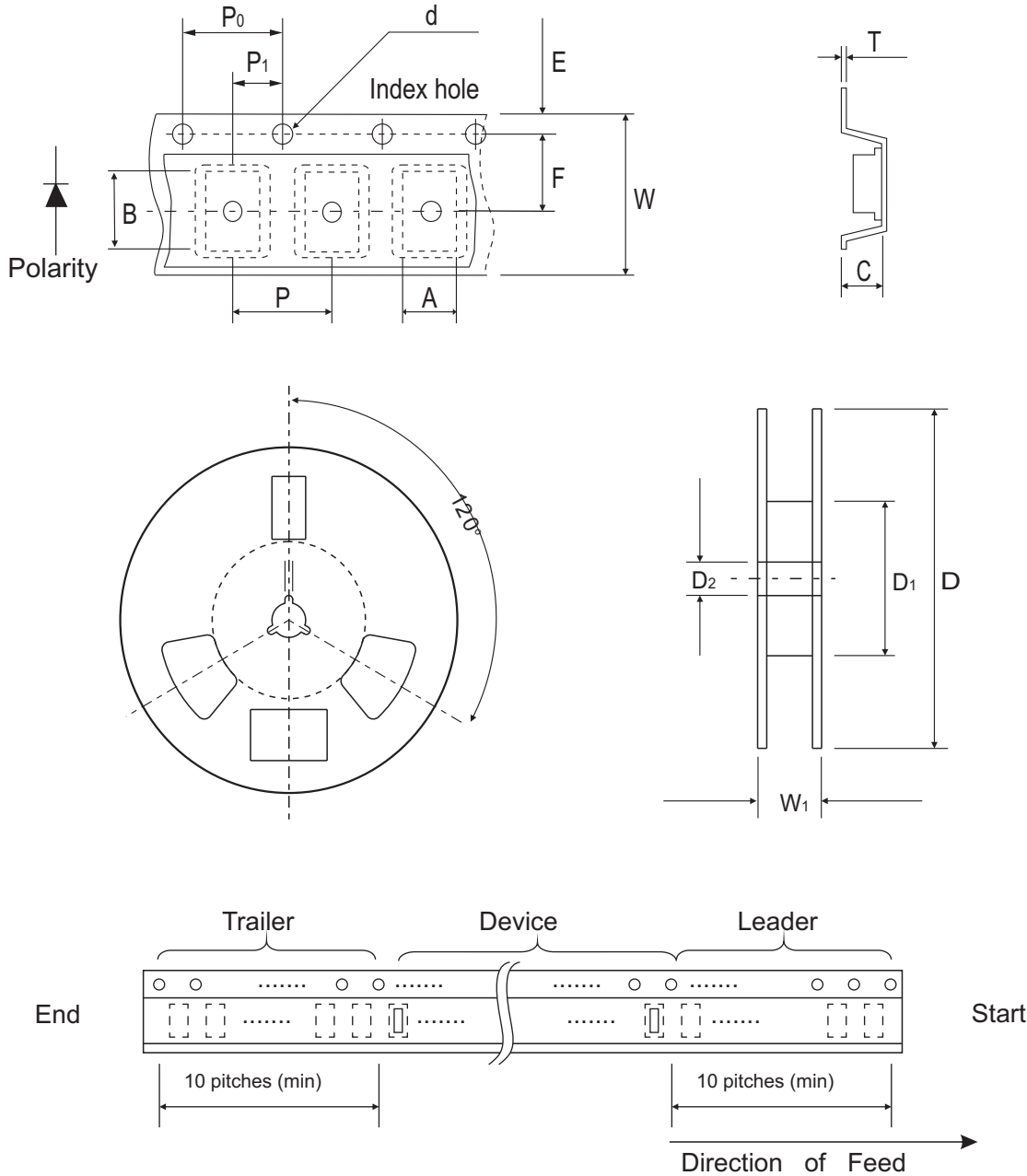
Fig.5 - Typical reverse characteristics



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Reel Taping Specification



Mini-SMA/SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(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

Mini-SMA/SOD-123	SYMBOL	E	F	P	P0	P1	T	W	W1
	(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

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Marking Code

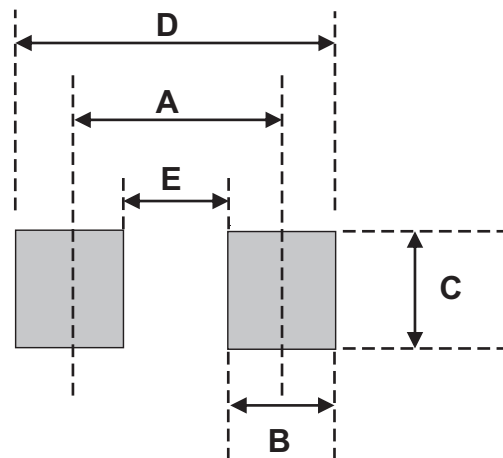
Part Number	Marking Code
CDBM240-G	24
CDBM260-G	26
CDBM2100-G	20
CDBM2150-G	215
CDBM2200-G	220



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