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Low VF SMD Schottky Barrier Rectifiers



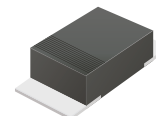
CDBMT220L-HF Thru. CDBMT240L-HF

Reverse Voltage: 20 to 40 Volts

Forward Current: 2.0 Amp

RoHS Device

Halogen Free

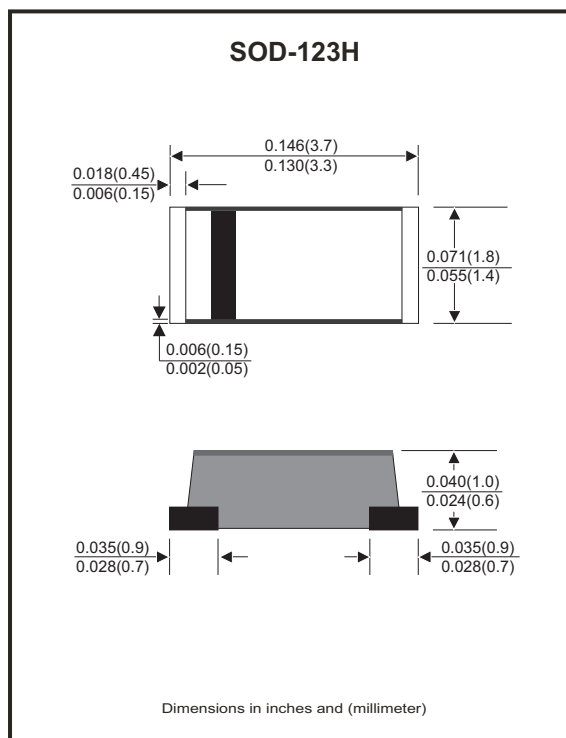


Features

- Excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guarding for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free part meets environmental standards of MIL-STD-19500/228

Mechanical data

- Case: Mini SMA/SOD-123H , molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Approx. weight: 0.011 grams



Maximum Ratings and Electrical Characteristics (at T_A=25°C unless otherwise noted)

Parameter	Symbol	CDBMT220L-HF	CDBMT230L-HF	CDBMT240L-HF	Units
Max. Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Continuous Reverse Voltage	V _R	20	30	40	V
Max. RMS Voltage	V _{RMS}	14	21	28	V
Max. Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I _{FSM}	50			A
Max. Forward Rectified Current (Fig.2)	I _o	2.0			A
Max. Forward Voltage @I _F =2.0A	V _F	0.38	0.40	0.40	V
Max. Reverse Current @T _A =25°C	I _R	1.0			mA
Typ. Thermal Resistance Junction to Ambient	R _{θJA}	70			°C/W
Typ. Diode Junction Capacitance f=1MHz and applied 4V DC reverse voltage	C _J	160			pF
Storage Temperature	T _{STG}	-65 to +175			°C
Operating Temperature	T _J	-55 to +100			°C

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RATING AND CHARACTERISTIC CURVES (CDBMT220L-HF thru. CDBMT240L-HF)

Fig.1 - Typical Forward Characteristics

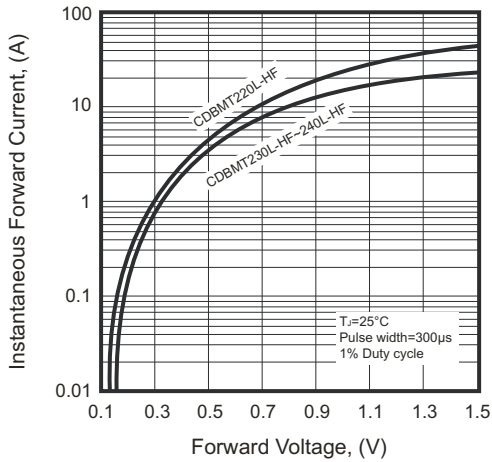


Fig.2 - Typical Forward Current Derating Curve

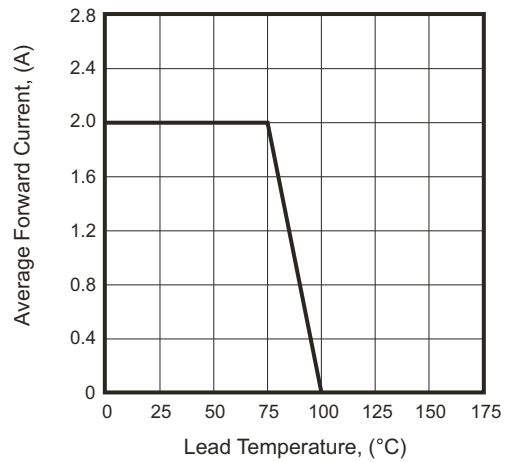


Fig.3 - Typical Reverse Characteristics

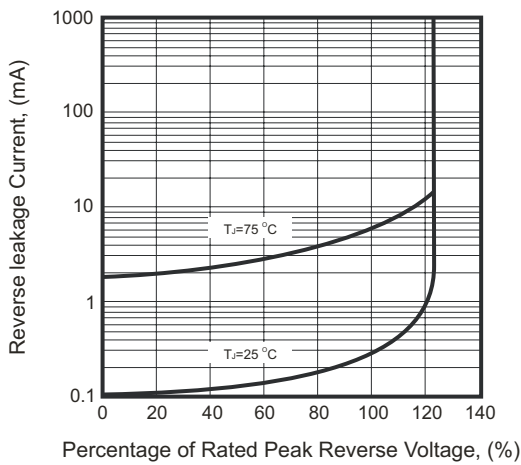


Fig.4 - Maximum Non-repetitive Forward Surge Current

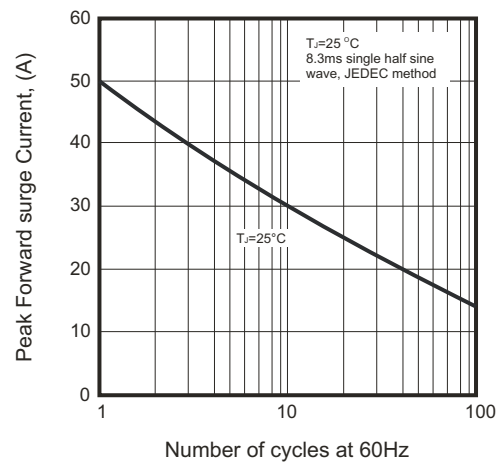
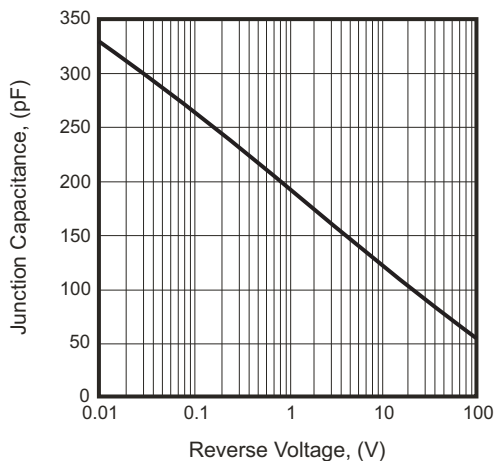


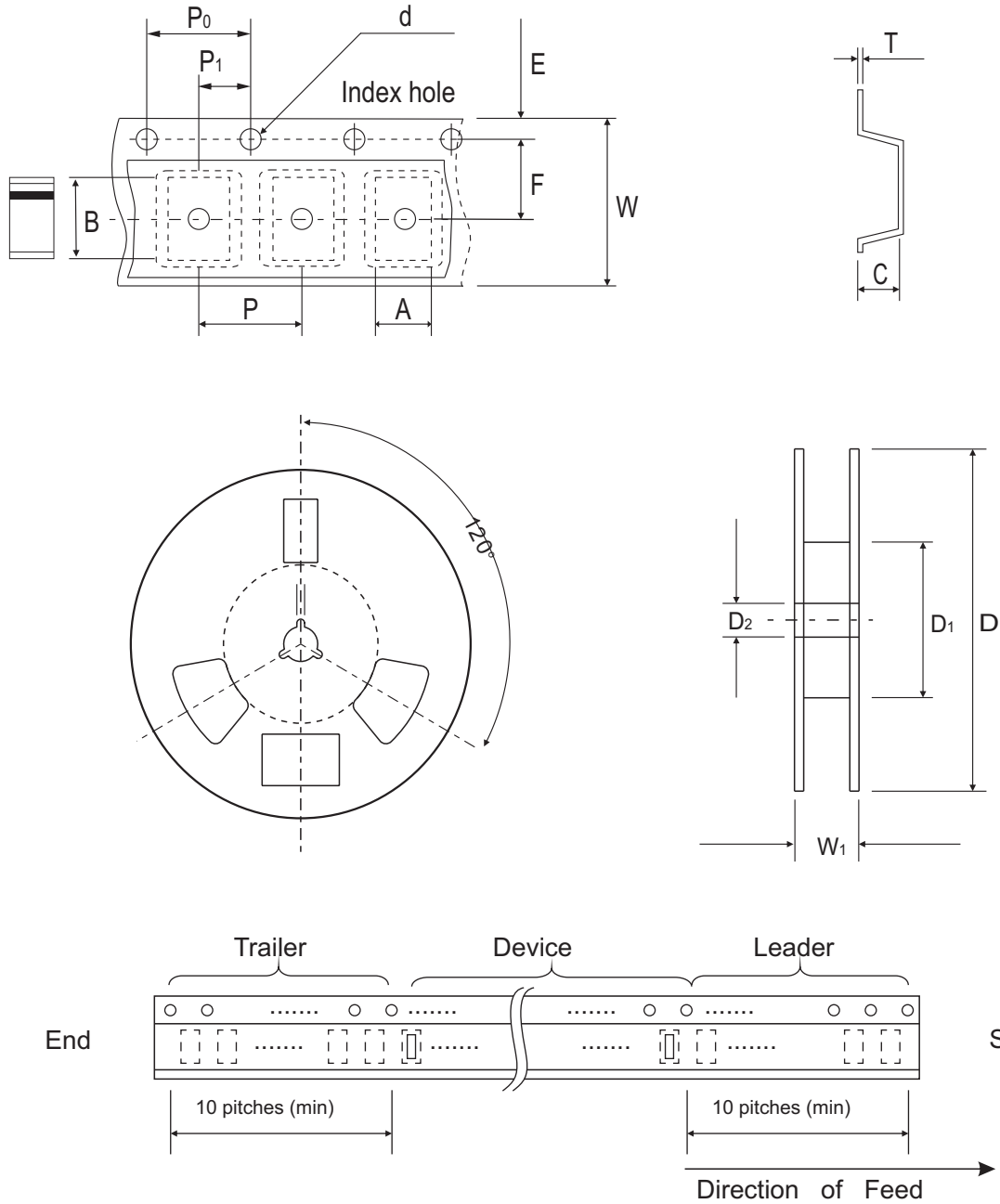
Fig.5 - Typical Junction Capacitance



SMD Schottky Barrier Rectifiers



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	178.00 ± 2.00	62.00 (min)	13.00 ± 0.50
	(inch)	0.079 ± 0.004	0.152 ± 0.004	0.043 ± 0.004	0.059 ± 0.004	7.007 ± 0.079	2.441 (min)	0.512 ± 0.020

SOD-123H	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	11.40 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.04	0.315 ± 0.012	0.449 ± 0.039

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Marking Code

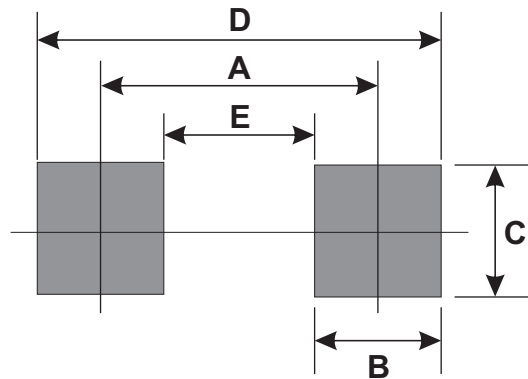
Part Number	Marking Code
CDBMT220L-HF	L22
CDBMT230L-HF	L23
CDBMT240L-HF	L24



XXX= 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