



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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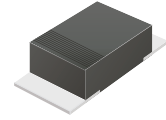
## CDBMT220L-HF Thru. CDBMT240L-HF

Reverse Voltage: 20 to 40 Volts

Forward Current: 2.0 Amp

RoHS Device

Halogen Free

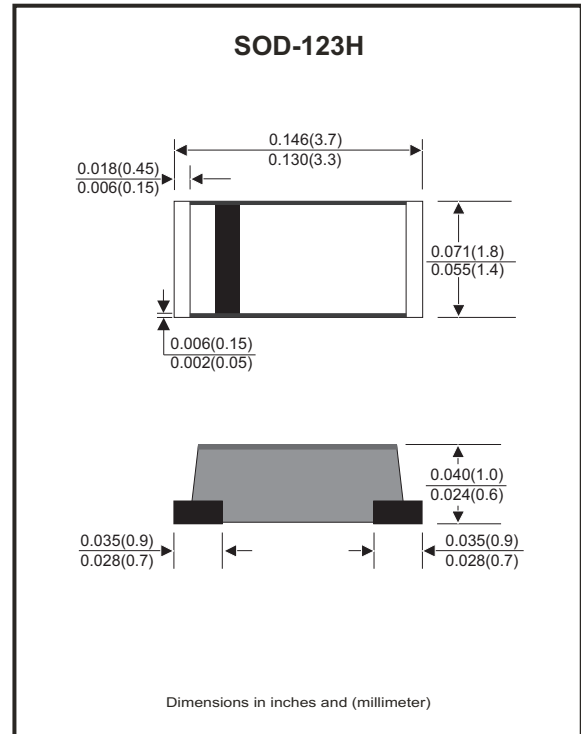


### Features

- 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<sub>A</sub>=25°C unless otherwise noted)

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

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

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

Fig.1 - Typical Forward Characteristics

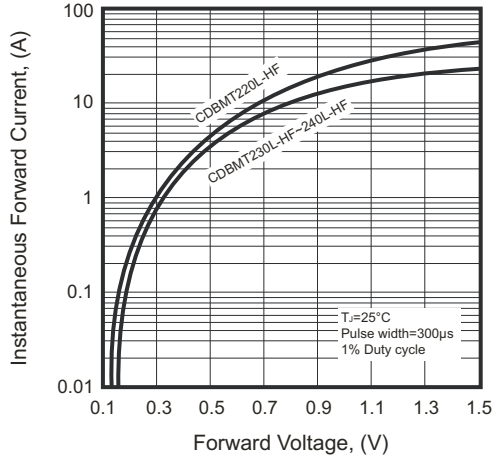


Fig.2 - Typical Forward Current Derating Curve

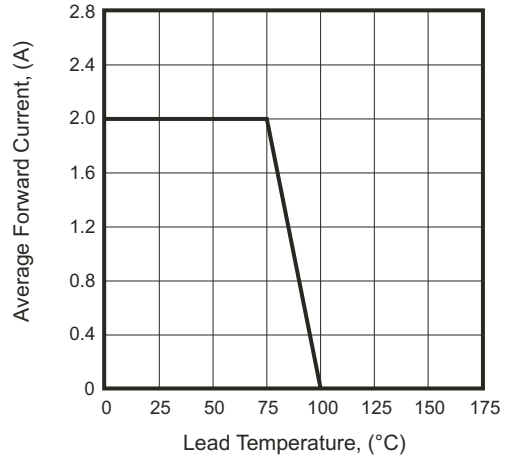


Fig.3 - Typical Revrse Characteristics

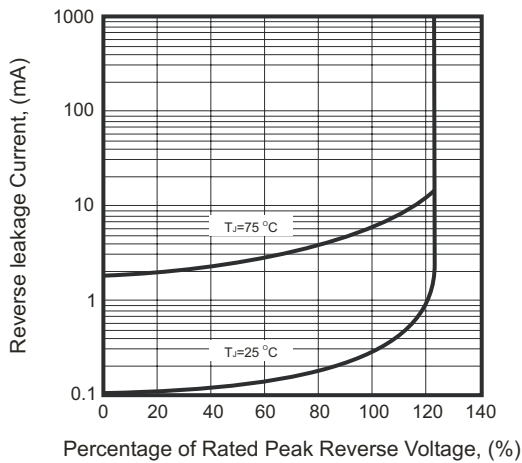


Fig.4 - Maximum Non-repetitive Forward Surge Current

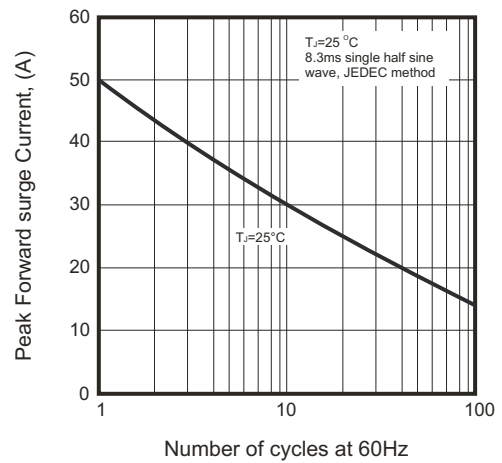
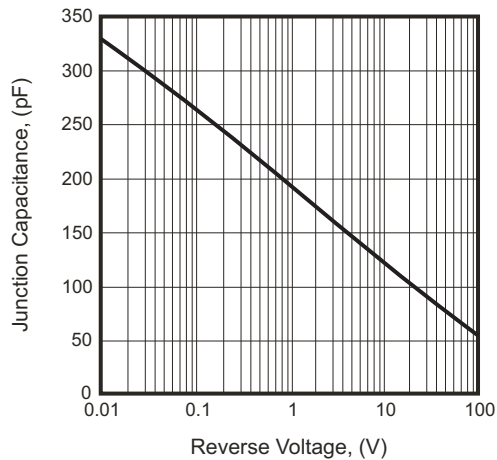
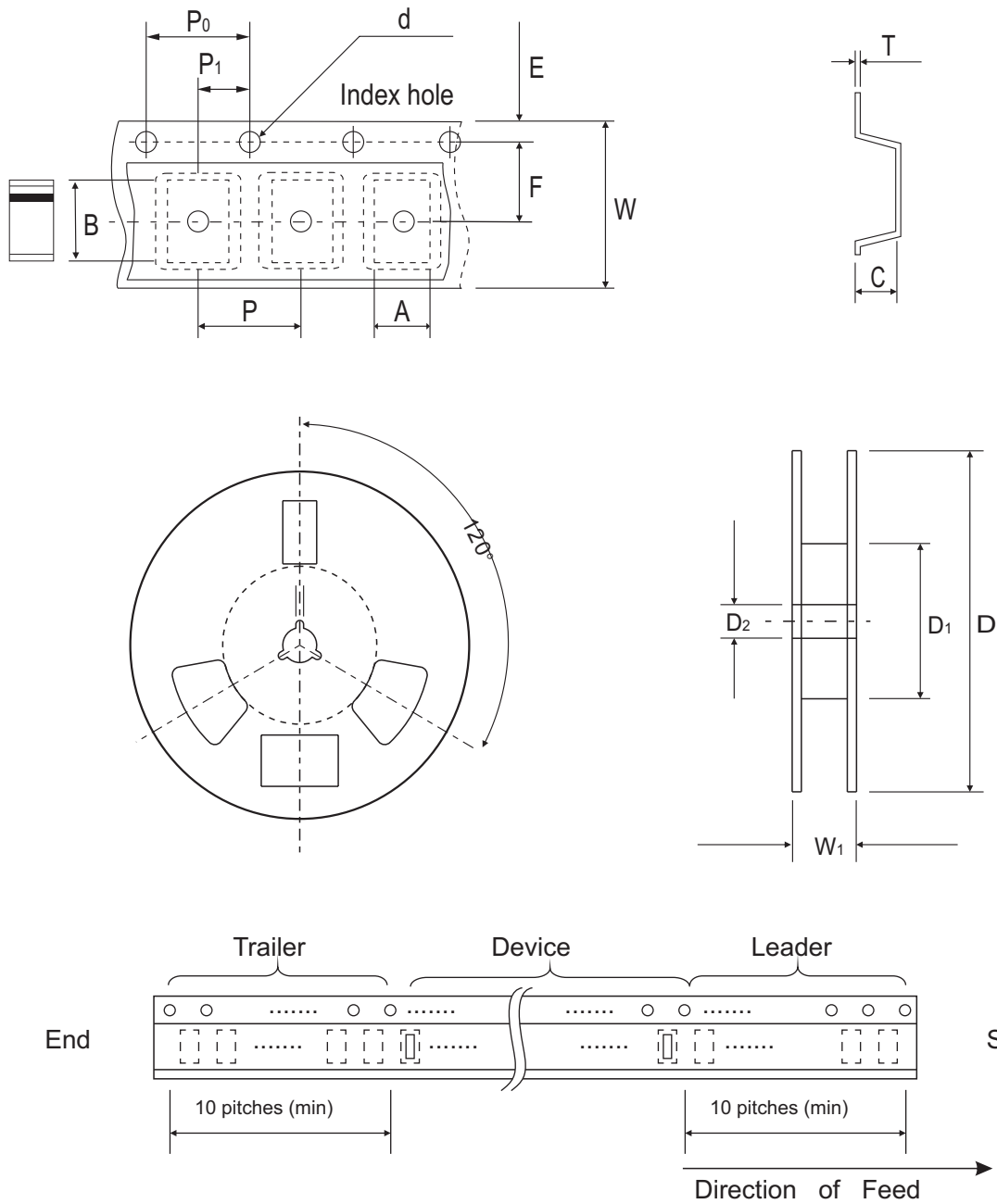


Fig.5 - Typical Junction Capacitance



## 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

## Marking Code

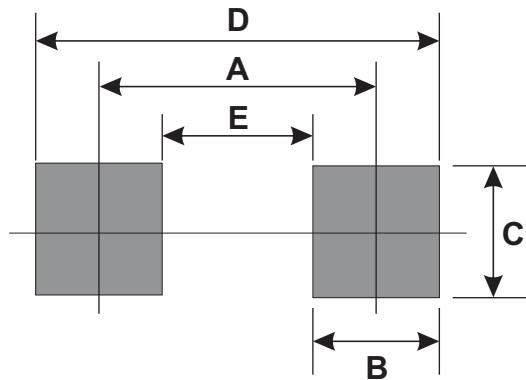
Part Number	Marking Code
CDBMT220L-HF	L22
CDBMT230L-HF	L23
CDBMT240L-HF	L24



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