

## CDBHM120-HF Thru. CDBHM1100-HF

Reverse Voltage: 20 to 100 Volts

Forward Current: 1.0 Amp

RoHS Device  
Halogen Free

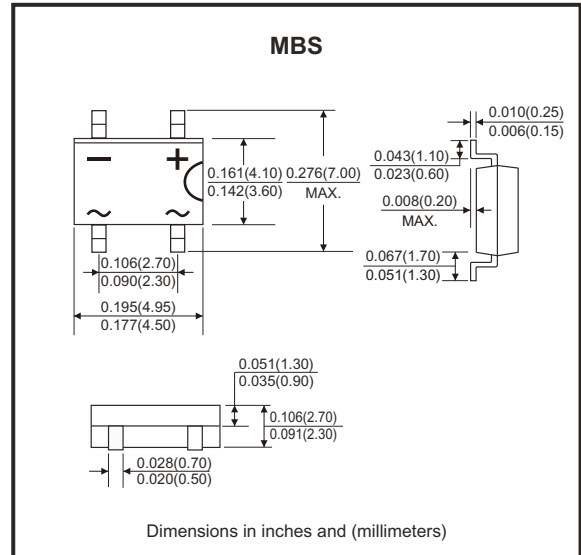


### Features

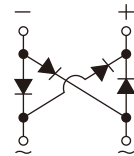
- Schottky brier chip.
- Low power loss, high efficiency.
- Ideally suited for automatic assembly.
- Surge overload rating to 30A peak.
- Plastic case material has UL flammability classification rating 94V-0.

### Mechanical data

- Case: MB-S, molded plastic.
- Terminals: Plated leads solderable per MIL-STD-202, Method 208.
- Polarity: As marked on case.
- Mounting position: Any.



### Circuit Diagram



### Maximum Ratings and Electrical Characteristics (at $T_A=25^\circ\text{C}$ , unless otherwise specified)

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Parameter	Symbol	CDBHM-HF								Unit
		120	130	140	145	150	160	180	1100	
Peak repetitive reverse voltage	$V_{RRM}$	20	30	40	45	50	60	80	100	V
DC blocking voltage	$V_{DC}$	20	30	40	45	50	60	80	100	V
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	31	35	42	56	70	V
Average rectified output current (Note 1) @ $T_c=100^\circ\text{C}$	$I_{F(AV)}$	1								A
Non-Repetitive peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30								A
$I^2t$ rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	3.735								$\text{A}^2\text{s}$
Forward voltage per element	$I_F=1.0\text{A}$ $V_{FM}$	0.55			0.7		0.85		V	
Peak reverse current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	0.1						0.05		mA
	$T_A=100^\circ\text{C}$	10						5		
Typical junction capacitance per leg	$C_j$	28								pF
Typical thermal resistance per leg (Note 2)	$R_{\theta JL}$	16								$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +150								$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150								$^\circ\text{C}$

Notes: 1. Mounted on aluminum substrate PC board with 1.3mm<sup>2</sup> solder pad.  
2. Thermal resistance from junction to lead.

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

REV:A

## Rating and Characteristics Curves (CDBHM120-HF Thru. CDBHM1100-HF)

Fig.1 - Forward Current Derating Curve

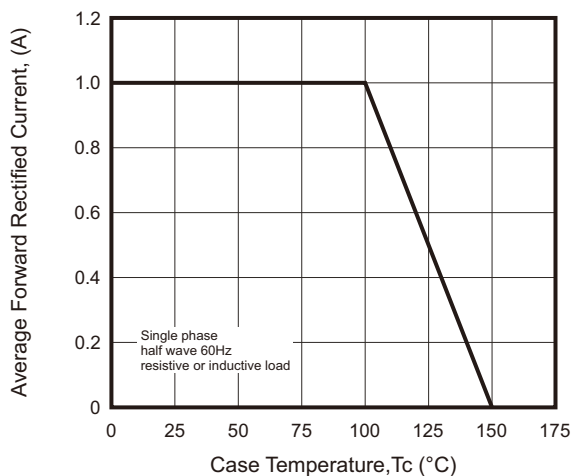


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

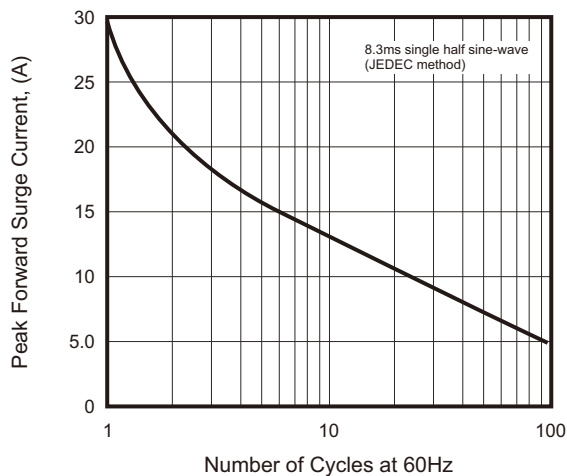


Fig.3 - Typical Instantaneous Forward Characteristics

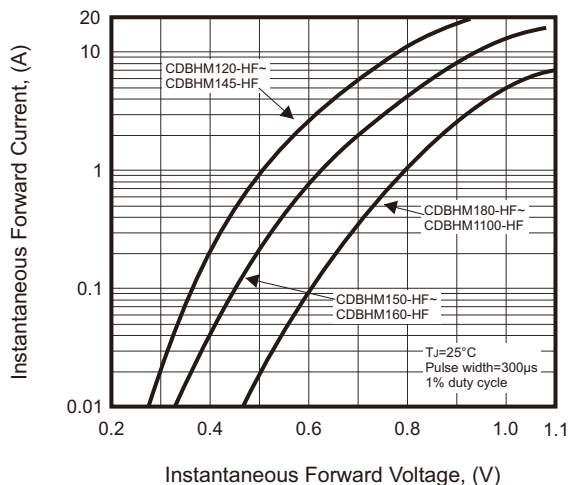
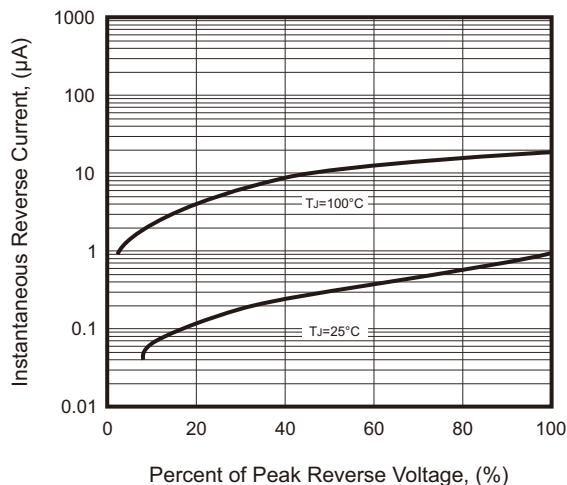
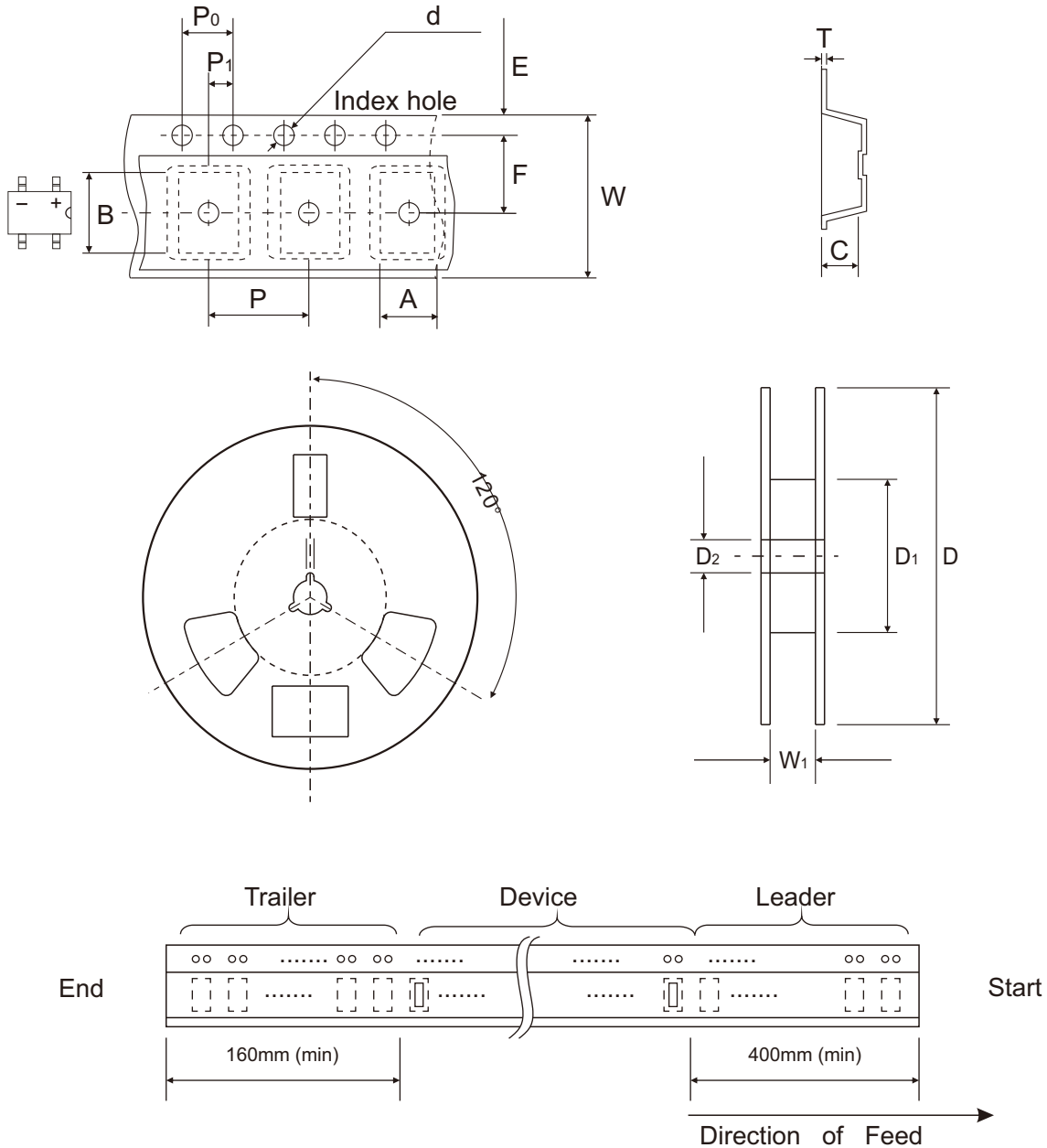


Fig.4 - Typical Reverse Characteristics



## Reel Taping Specification



MBS	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	5.02 ± 0.10	7.22 ± 0.10	2.88 ± 0.10	1.55 ± 0.05	330.00 ± 1.00	75.00 ± 1.00	13.50 + 1.00 - 0.50
	(inch)	0.198 ± 0.004	0.284 ± 0.004	0.113 ± 0.004	0.061 ± 0.002	12.992 ± 0.039	2.953 ± 0.039	0.531 + 0.039 - 0.020

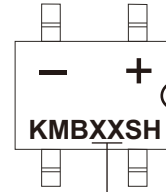
MBS	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.27 ± 0.03	12.00 ± 0.10	13.50 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.011 ± 0.001	0.472 ± 0.004	0.531 ± 0.039

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## Marking Code

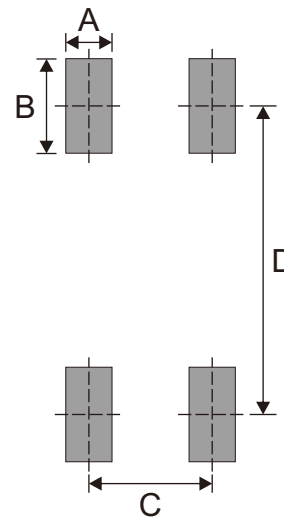
Part Number	Marking Code
CDBHM120-HF	KMB12SH
CDBHM130-HF	KMB13SH
CDBHM140-HF	KMB14SH
CDBHM145-HF	KMB145SH
CDBHM150-HF	KMB15SH
CDBHM160-HF	KMB16SH
CDBHM180-HF	KMB18SH
CDBHM1100-HF	KMB110SH



XX/XXX = Product type marking code

## Suggested PAD Layout

SIZE	MBS	
	(mm)	(inch)
A	0.90	0.035
B	1.84	0.072
C	2.40	0.094
D	6.00	0.236



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
MBS	3,000	13

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