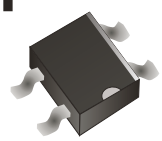
CDBHM120-HF Thru. CDBHM1100-HF

Reverse Voltage: 20 to 100 Volts
Forward Current: 1.0 Amp
RoHS Device
Halogen Free

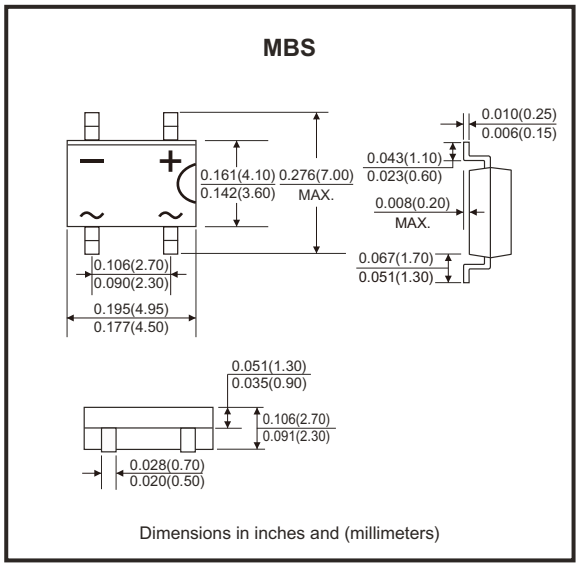


Features

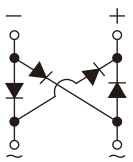
- Schottky brrier chip.
- Low power loss, high efficiency.
- Ideally suited for automatic assembly.
- Surge overload rating to 30A peak.
- Plastic case material has UL flammability classification rating 94V-0.

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°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°C		IF(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< 8.3ms)		I^2t	3.735								A^2s
Forward voltage per element	I_F=1.0A	V_{FM}	0.55				0.7		0.85		V
Peak reverse current at rated DC blocking voltage	T_A=25°C	I_{RM}	0.1						0.05		mA
	T_A=100°C		10						5		
Typical junction capacitance per leg		C_j	28								pF
Typical thermal resistance per leg (Note 2)		$R_{\theta JL}$	16								°C/W
Operating junction temperature range		T_J	-55 to +150								°C
Storage temperature range		T_{STG}	-55 to +150								°C

Notes: 1. Mounted on aluminum substrate PC board with 1.3mm² 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

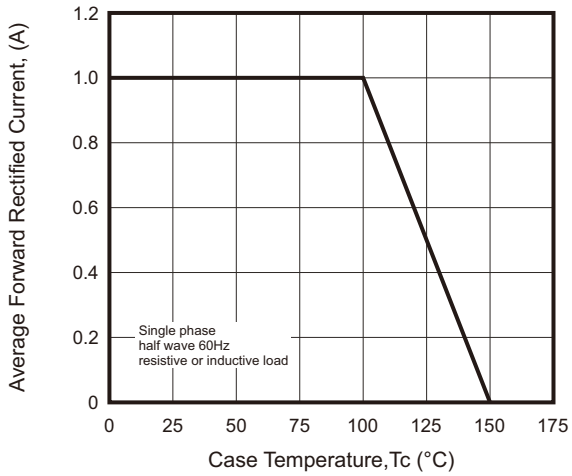


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

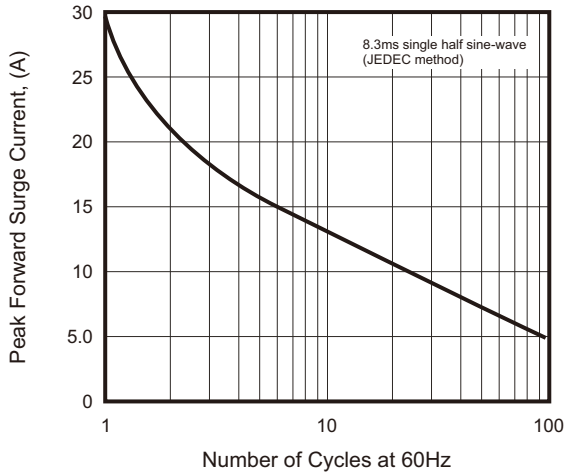


Fig.3 - Typical Instantaneous Forward Characteristics

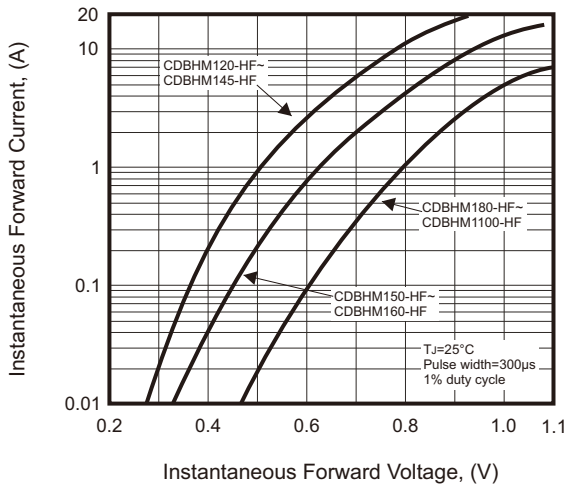
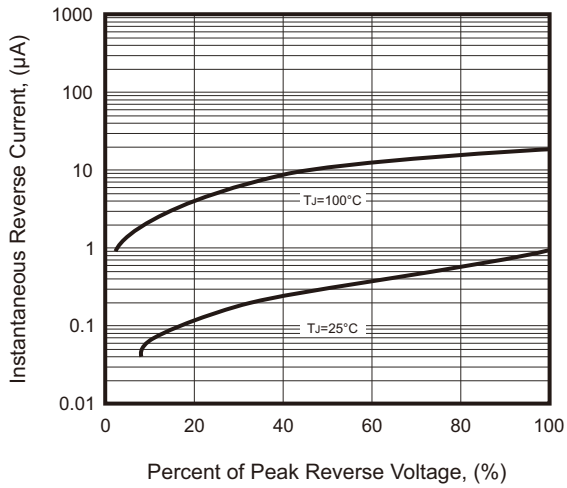
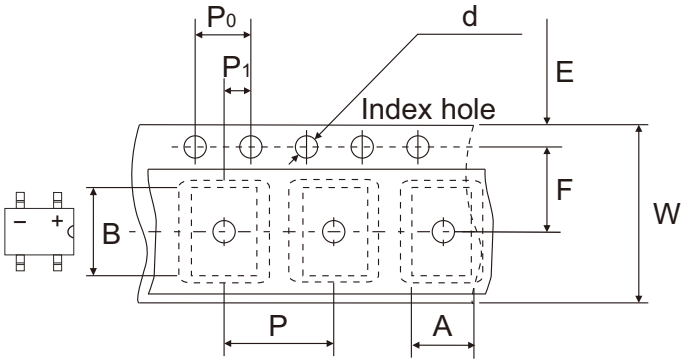
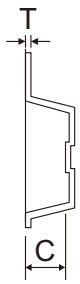


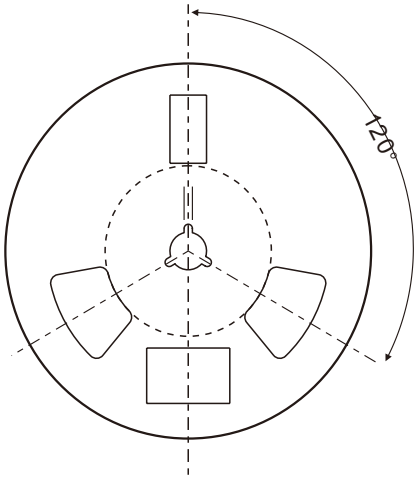
Fig.4 - Typical Reverse Characteristics

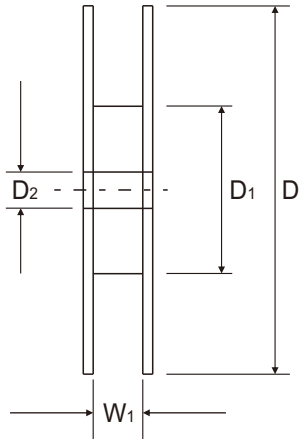


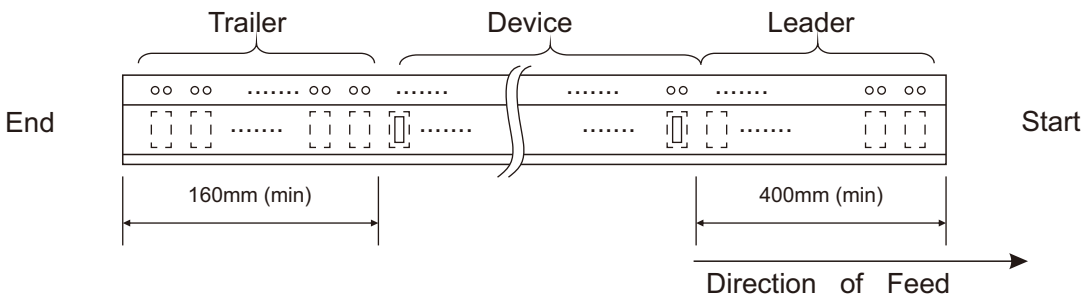
Reel Taping Specification









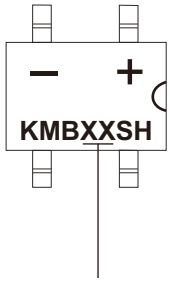


	SYMBOL	A	B	C	d	D	D1	D2
MBS	(mm)	5.02 ± 0.10	7.22 ± 0.10	2.88 ± 0.10	1.55 ± 0.05	330.00 ± 1.00	75.00 ± 1.00	13.50 + 1.00 - 0.50
	(inch)	0.198 ± 0.004	0.284 ± 0.004	0.113 ± 0.004	0.061 ± 0.002	12.992 ± 0.039	2.953 ± 0.039	0.531 + 0.039 - 0.020

	SYMBOL	E	F	P	P0	P1	T	W	W1
MBS	(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

Marking Code

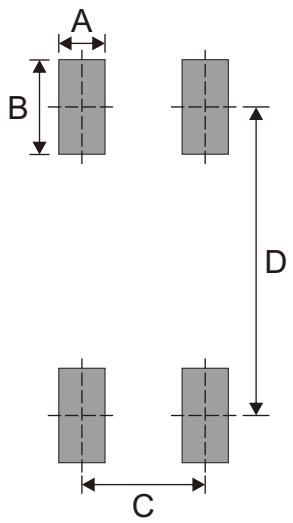
Part Number	Marking Code
CDBHM120-HF	KMB12SH
CDBHM130-HF	KMB13SH
CDBHM140-HF	KMB14SH
CDBHM145-HF	KMB145SH
CDBHM150-HF	KMB15SH
CDBHM160-HF	KMB16SH
CDBHM180-HF	KMB18SH
CDBHM1100-HF	KMB110SH



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