

# Low VF SMD Schottky Bridge Rectifiers



SMD Diodes Specialist

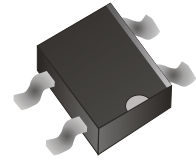
## CDBHM120L-HF Thru. CDBHM1100L-HF

Reverse Voltage: 20 to 100 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

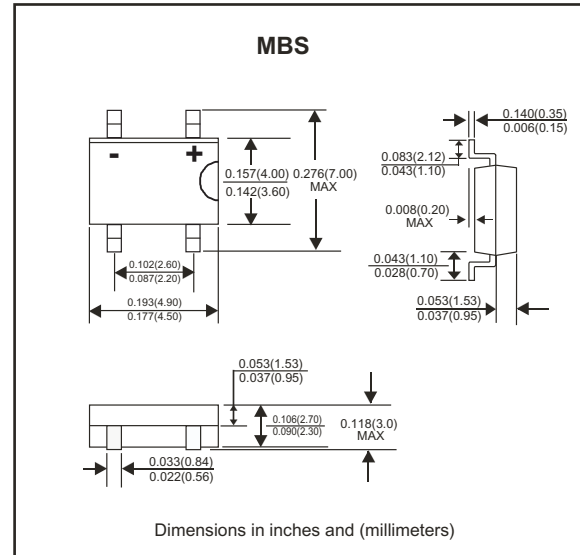


### Features

- Ideal for printed circuit board
- Reliable low cost construction technique results in inexpensive product
- High current capability, Low VF
- High temperature soldering guaranteed: 260°C / 10 seconds
- Pb free product

### Mechanical data

- Case: molded plastic
- Lead: solder plated
- Polarity: As marked



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz resistive or inductive load.

For capacitive load, derate current by 20%

Parameter	Symbol	CDBHM 120L-HF	CDBHM 140L-HF	CDBHM 160L-HF	CDBHM 180L-HF	CDBHM 1100L-HF	Units
Maximum. Repetitive peak reverse voltage	$V_{RRM}$	20	40	60	80	100	V
Maximum. DC blocking voltage	$V_{DC}$	14	28	42	56	70	V
Maximum. RMS voltage	$V_{RMS}$	20	40	60	80	100	V
Maximum. Instantaneous forward voltage @ 0.5A	$V_F$	0.55		0.65	0.85		V
Average Forward rectified current 0.2*0.2" (5.0*5.0mm)copper pad area ,(see figure 2)	$I_{AV}$	1.0					A
Peak Forward surge current,8.3ms single half sine-wave superimposed on Rated Load (JEDEC method)	$I_{FSM}$	40					A
Maximum. DC reverse current @TA=25°C rated DC blocking voltage per leg @TA=100°C	$I_R$	0.5 20					mA
Typical thermal resistance(Note 3)	$R_{\theta JA}$	85					°C/W
	$R_{\theta JL}$	20					
Typical junction capacitance(Note 2)	$C_J$	250			125		pF
Operating temperature range	$T_J$	-55 to +125			-55 to +150		°C
Storage temperature range	$T_{STG}$	-55 to +150					°C

Notes: 1.Pulse test: 300µs pulse width, 1% duty cycle.

2.Measured at 1.0MHz and applied reverse voltage of 4.0 Voltage.

3.Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2x0.2" (5.0x5.0mm) copper pad areas.

## RATING AND CHARACTERISTIC CURVES (CDBHM120L-HF Thru. CDBHM1100L-HF)

Fig. 1 - Maximum Non-Repetitive Forward Surge Current Per Bridge Element

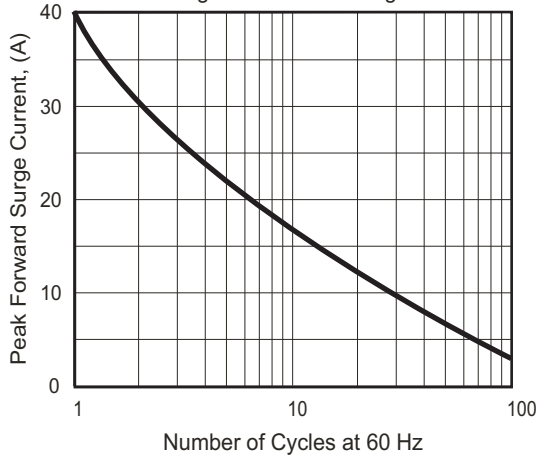


Fig.2 - Maximum Forward Current Derating Curve

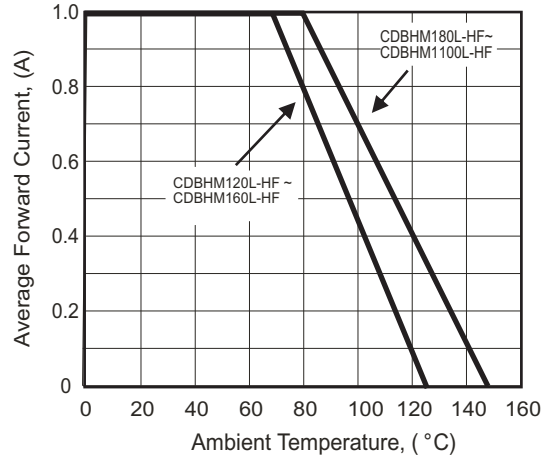


Fig. 3 - Typical Instantaneous Forward Characteristics Per Bridge Element

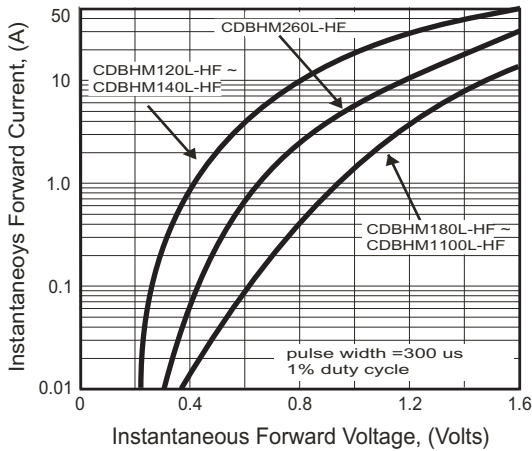
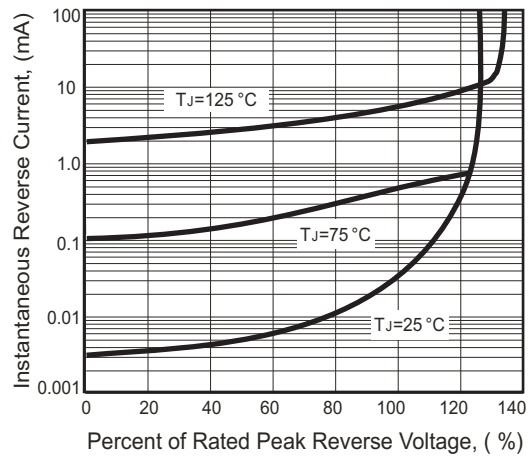
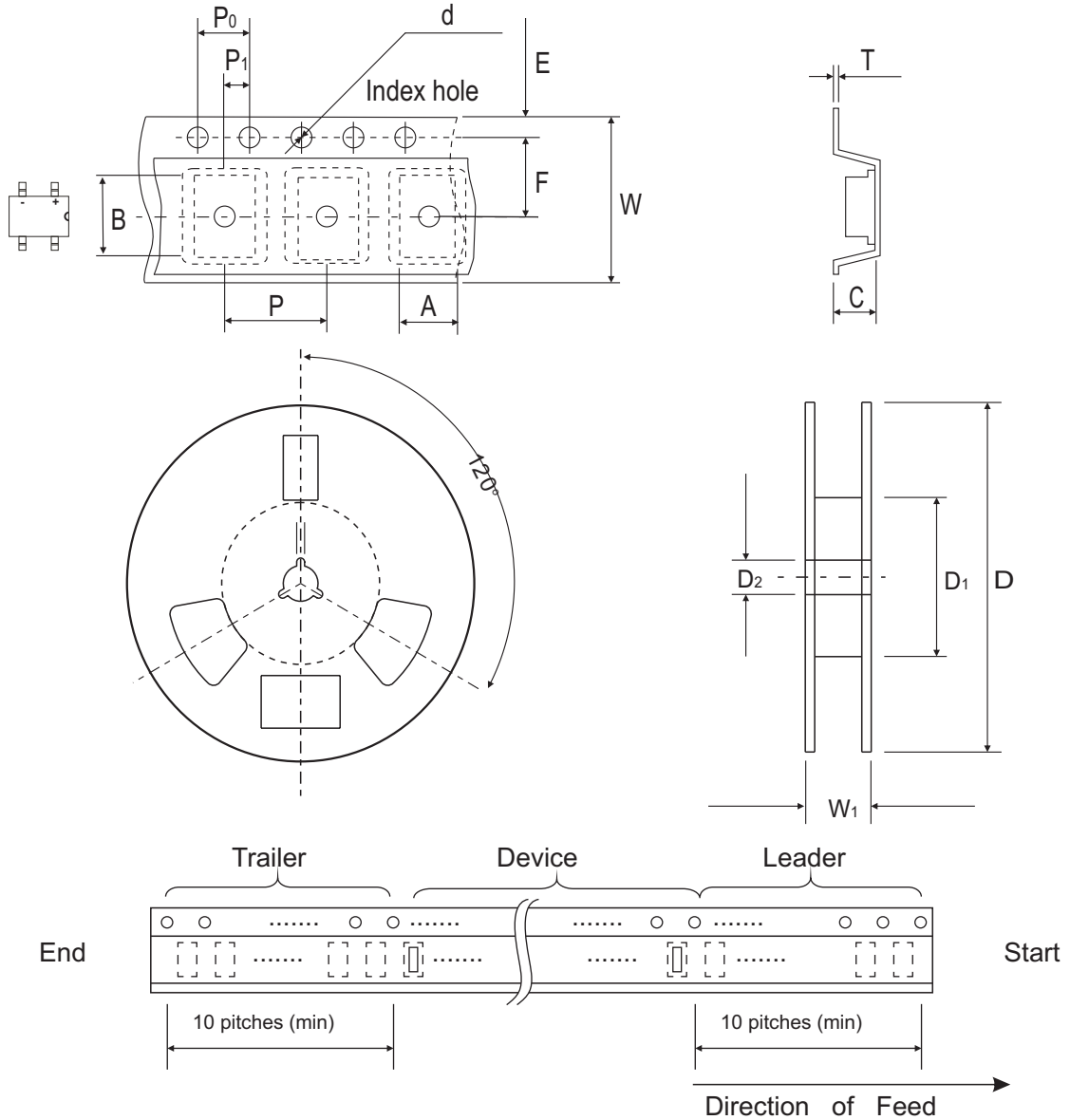


Fig. 4 - Typical Reverse Characteristics Per Bridge Element



## Reel Taping Specification

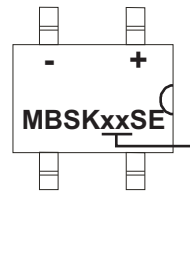


MBS	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	5.00 ± 0.01	7.24 ± 0.10	2.95 ± 0.10	1.50 ± 0.10	330.0	50.0 MIN.	13.0 ± 0.20
	(inch)	0.197 ± 0.004	0.285 ± 0.004	0.116 ± 0.004	0.059 ± 0.004	13.00	1.969 MIN.	0.512 ± 0.008

MBS	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	12.00 ± 0.30	12.0~14.40
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.472 ± 0.012	0.472~0.657

## Marking Code

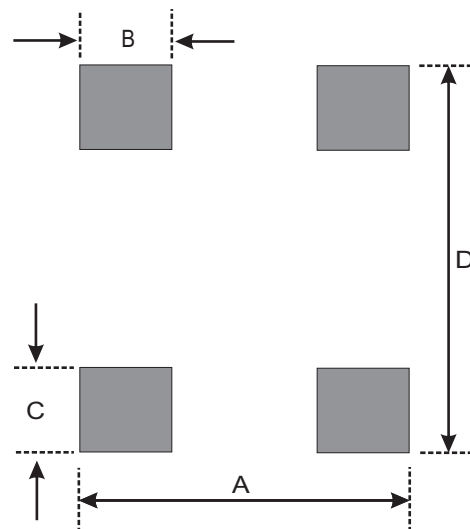
Part Number	Marking Code
CDBHM120L-HF	MBSK12SE
CDBHM140L-HF	MBSK14SE
CDBHM160L-HF	MBSK16SE
CDBHM180L-HF	MBSK18SE
CDBHM1100L-HF	MBSK110SE



xx/xxx = Product type marking code

## Suggested PAD Layout

SIZE	MBS	
	(mm)	(inch)
A	3.30	0.130
B	0.90	0.035
C	1.84	0.072
D	6.00	0.236



## Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
MBS	2500	13