

## Low $V_F$ SMD Schottky Bridge Rectifiers

Package: MBS (Molded Plastic)

Reverse Voltage: 20 to 100 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

Lead Free

High current capability, Low  $V_F$

High temperature soldering  
guaranteed: 260°C / 10 second

Lead: solder plated

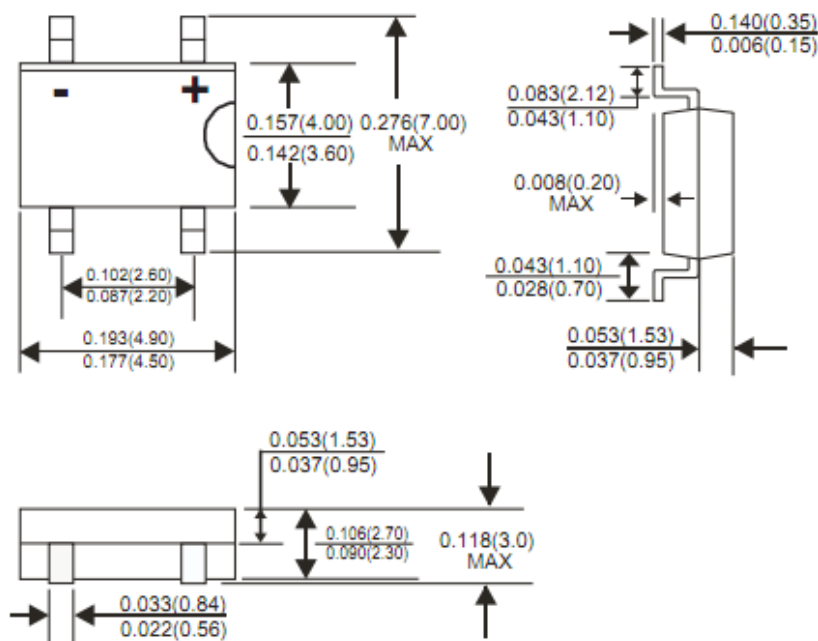
Polarity: As marked



Designed for today's high efficiency applications, Comchip's CDBHM low  $V_F$  Schottky bridge rectifier series utilizes the MBS package. Rectifying faster than standard bridge rectifiers, the CDBHM series is ideal for components of DC power supplies and provides full-wave

rectification from a two-wire AC input, resulting in lower cost and weight as compared to a rectifier with a 3-wire input from a transformer with a center-tapped secondary winding. With a forward current of 1 amp, reverse voltage applications range from 20 to 100 volts.

### MBS



Dimensions in inches and (millimeters)

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## 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 <sub>RRM</sub>	20	40	60	80	100	V
Maximum. DC blocking voltage	V <sub>DC</sub>	14	28	42	56	70	V
Maximum. RMS voltage	V <sub>RMS</sub>	20	40	60	80	100	V
Maximum. Instantaneous forward voltage @ 0.5A	V <sub>F</sub>	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 <sub>AV</sub>	1.0					A
Peak Forward surge current,8.3ms single half sine-wave superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	40					A
Maximum. DC reverse current @TA=25°C rated DC blocking voltage per leg @TA=100°C	I <sub>R</sub>	0.5 20					mA
Typical thermal resistance(Note 3)	R <sub>θJA</sub>	85					°C/W
	R <sub>θJL</sub>	20					
Typical junction capacitance(Note 2)	C <sub>J</sub>	250			125		pF
Operating temperature range	T <sub>J</sub>	-55 to +125			-55 to +150		°C
Storage temperature range	T <sub>STG</sub>	-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.

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