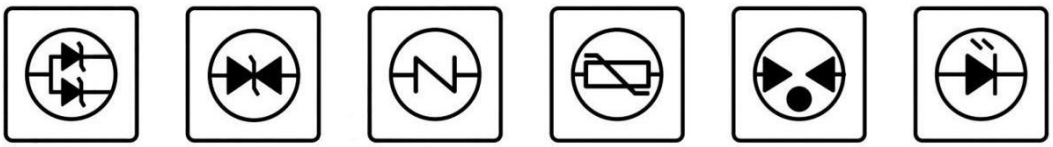
MSKSEMI 美森科
SEMICONDUCTOR



MB05F THRU MB10F

Product specification

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0

Mechanical Data

Case : JEDEC MBF Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750,Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.0026 ounce, 0.075 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25 °C ambient temperature unle ss otherwise specified.

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

Parameter / Marking Code	SYMBOLS	MB05	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	140	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at Tc=30℃ On glass-epoxy P.C.B. On aluminum substrate	$I_{F(AV)}$	0.5 0.8							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum instantaneous forward voltage drop per leg at 1A	V_F	1.1							V
Maximum DC reverse current at rated DC blocking voltage T_A=25℃ T_A=100℃	I_R	5 500							uA
Typical junction capacitance NOTE3	C_J	13							PF
Typical thermal resistance	$R_{\theta JA}$	60							°C/W
Operating temperature range	T_J	-55 to +150							°C
storage temperature range	T_{STG}	-55 to +150							°C

NOTES:1.On glass epoxy P.C.B. mounted on 0.05x0.05"(1.3x1.3mm) pads
2.On aluminum substrate P.C.B. with on area of 0.8"x0.8"(20x20mm) mounted on 0.05X0.05"(1.3X1.3mm) solder pad
3.Measured at 1.0MHz and applied reverse voltage of 4.0 volts.

Ratings And Characteristic Curves

Fig. 1 Output Current Derating Curve

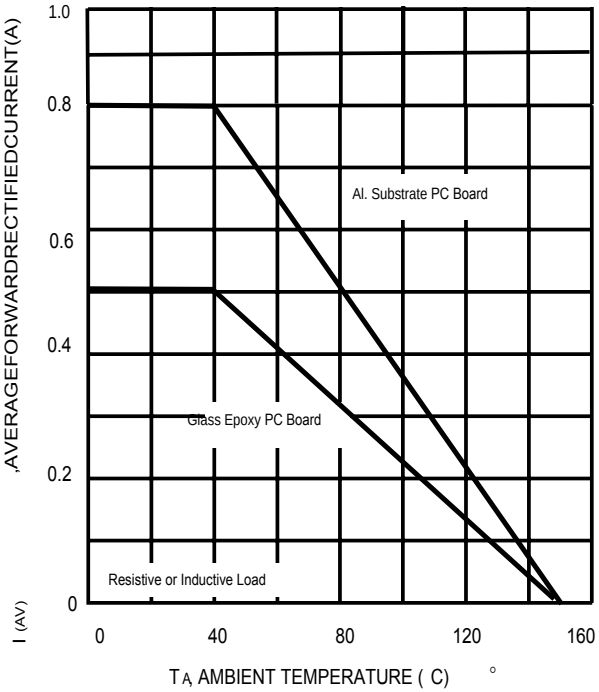


Fig. 2 T ypical Forward Characteristics (per leg)

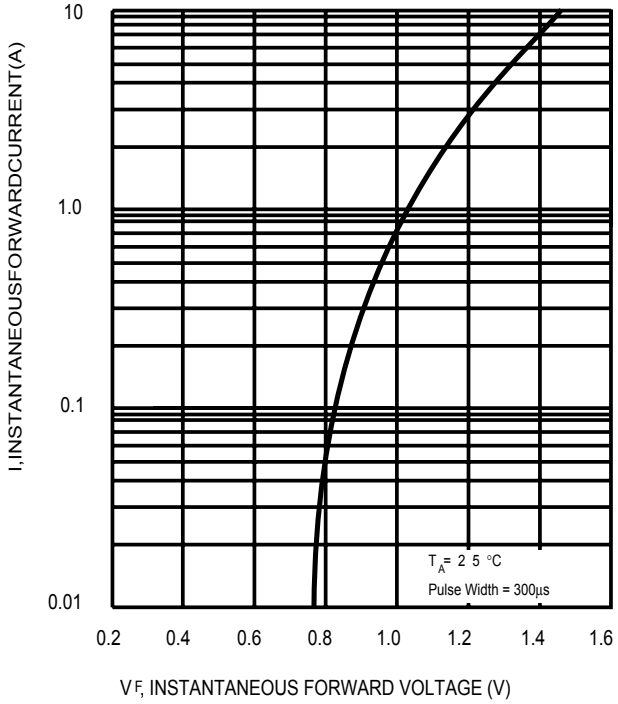


Fig. 3 Maximum Peak Forward Surge Current (per leg)

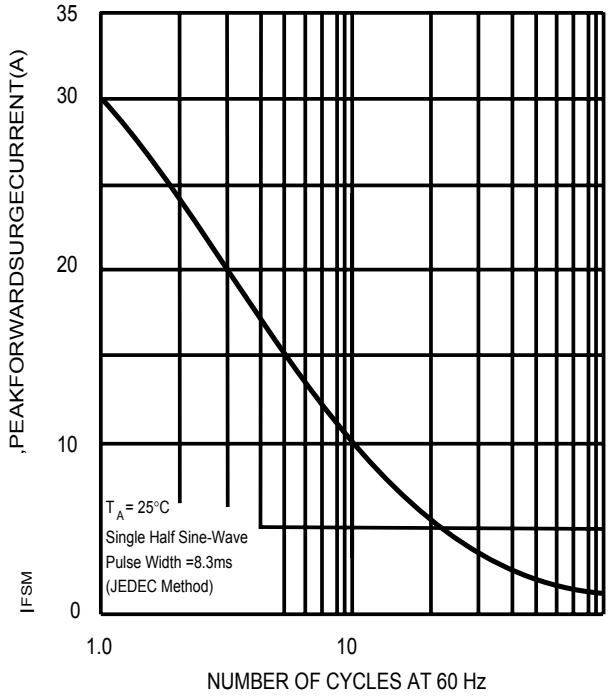
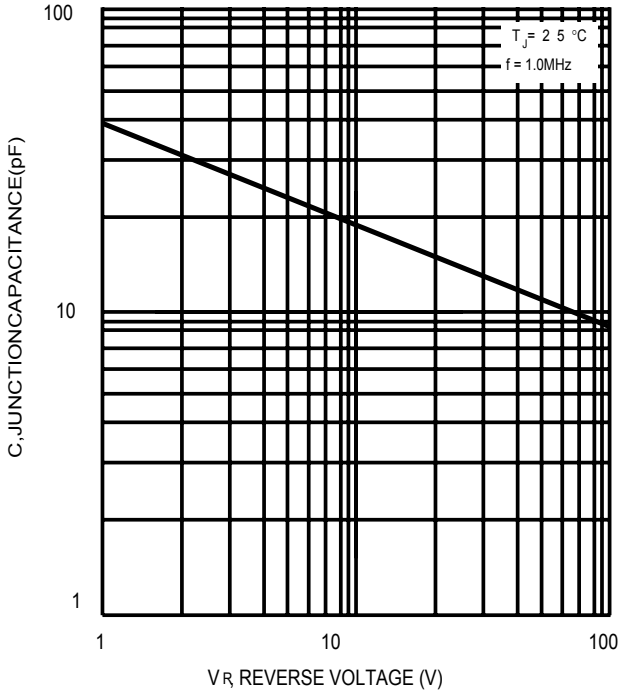
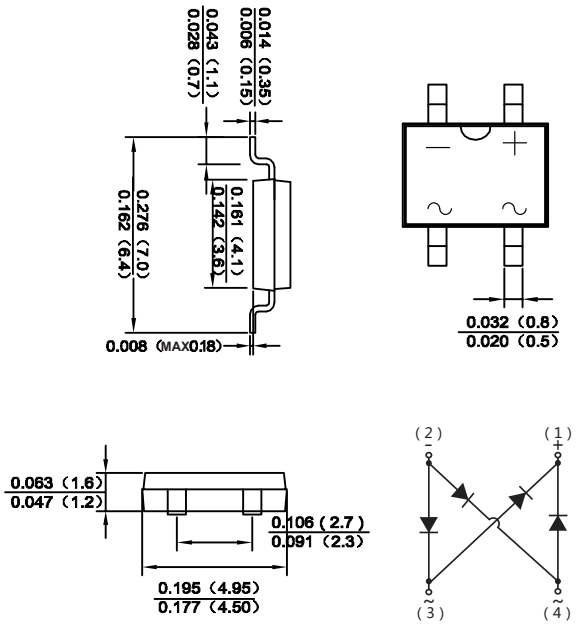


Fig. 4 T ypical Junction Capacitance



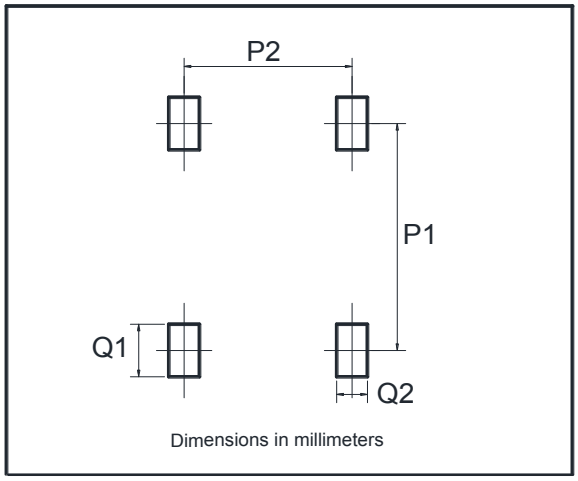
The curve above is for reference only.

MBF



Dimensions in inches and (millimeters)

Suggested Pad Layout



Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1.20

REEL SPECIFICATION

P/N	PKG	QTY
MB05F THRU MB10F	MBF	5000

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