

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

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

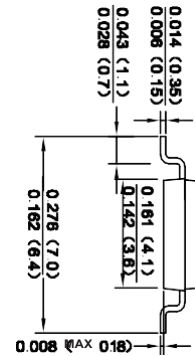
Case : JEDEC MBF Molded plastic body

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

Polarity : Polarity symbol marking on body

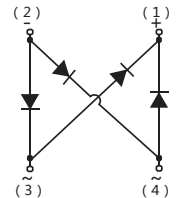
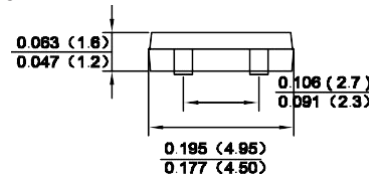
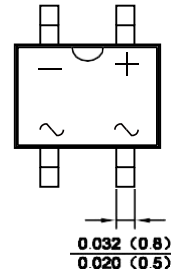
Mounting Position : Any

Weight : 0.0026 ounce, 0.075 grams



MBF

RoHS
COMPLIANT



Maximum Ratings And Electrical Characteristics

Dimensions in inches and (millimeters)

Ratings at 25 °C ambient temperature unless otherwise specified.

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

Parameter	SYMBOLS	RCD MB05	RCD MB1F	RCD MB2F	RCD MB4F	RCD MB6F	RCD MB8F	RCD MB10F	UNITS
Marking Code									
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 $T_c=30^\circ\text{C}$ 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 $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	5 500							μA
Typical junction capacitance NOTE3	C_J	13							pF
Typical thermal resistance	$R_{\theta A}$	60							$^\circ\text{C/W}$
Operating temperature range	T_J	-55 to +150-							$^\circ\text{C}^\circ$
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.

Fig. 1 Output Current Derating Curve

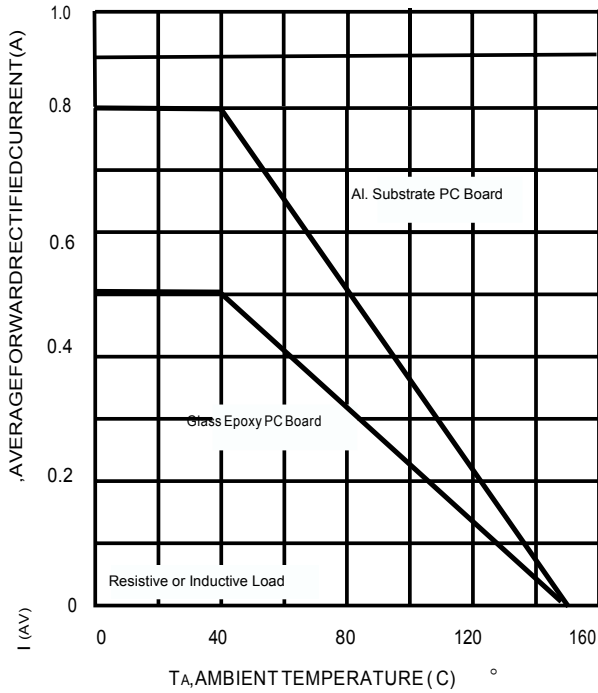


Fig. 2 Typical Forward Characteristics (per leg)

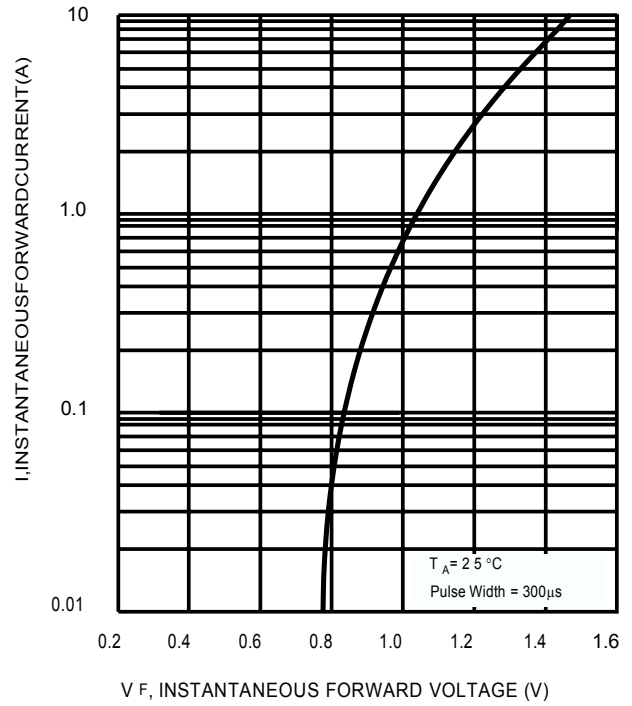


Fig. 3 Maximum Peak Forward Surge Current (per leg)

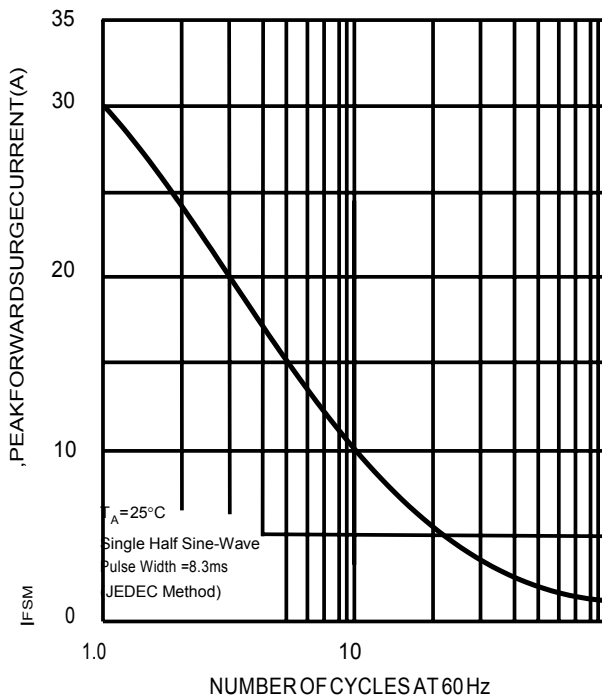
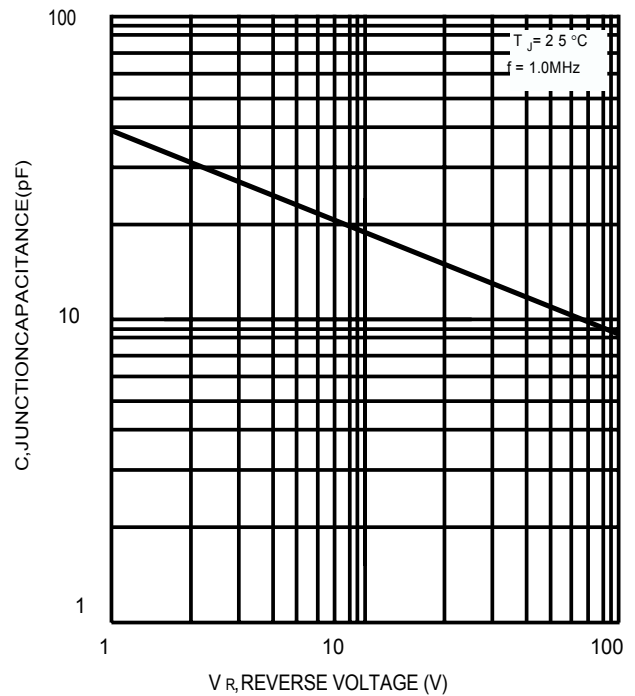
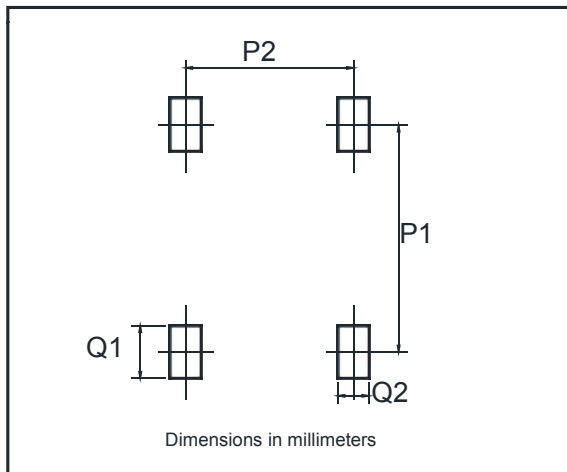


Fig. 4 Typical Junction Capacitance





Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1.20