



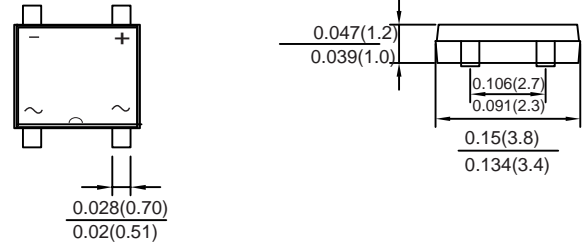
UMB05F THRU UMB10F

Voltage Range - 100 to 1000 Volts Current - 0.8 Ampere

SURFACE MOUNT BRIDGE RECTIFIER

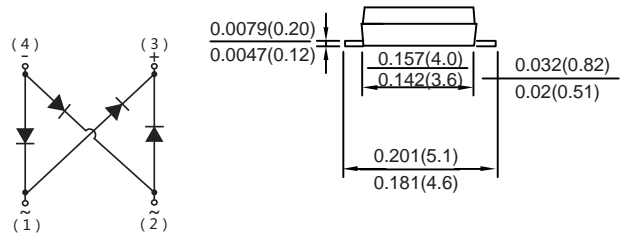
Features

- ◆ 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: Solderable per MIL-STD-750, Method 2026A
 Polarity: Polarity symbol marking on body
 Mounting Position: Any
 Weight: 0.0016 ounce, 0.45 grams



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

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	MDD UMB05F	MDD UMB1F	MDD UMB2F	MDD UMB4F	MDD UMB6F	MDD UMB8F	MDD UMB10F	Units
Marking Code									
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average Rectified Output Current at $T_c = 115^\circ\text{C}$ NOTE1	I_F	0.5 0.8							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	20							A
Maximum Forward Voltage at 0.4 A NOTE2	V_F	1.1							V
Maximum DC Reverse Current @ $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_a = 125^\circ\text{C}$	I_R	5 100							μA
Thermal resistance from junction to ambient per leg	$R_{\theta JA(1)}$ $R_{\theta JA(2)}$	100 80							$^\circ\text{C/W}$
Thermal resistance from junction to ambient per leg	$R_{\theta JL}$	30							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							$^\circ\text{C}$

Note 1: On aluminum substrate P.C.B. with an area of 0.8×0.8"(20×20mm) mounted on 0.06×0.04"(1.5×1.1mm) solder pad

2: Pulse test: 300s pulse width, 1% duty cycle.



Typical Characteristics

Fig.1 Average Rectified Output Current Derating Curve

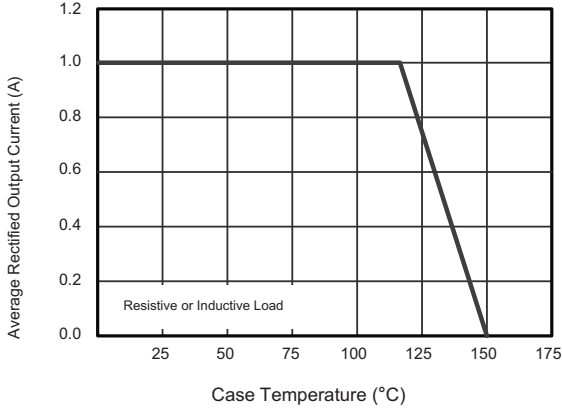


Fig.2 Typical Reverse Characteristics

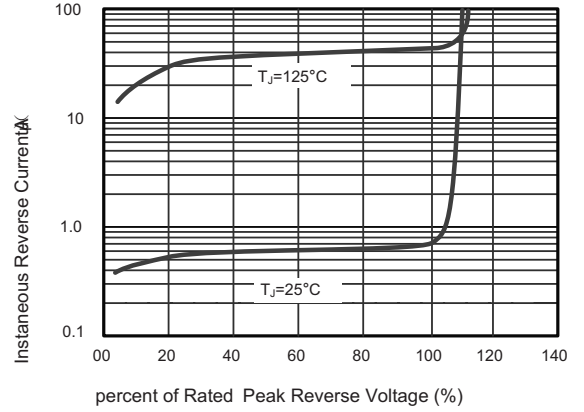


Fig.3 Typical Instantaneous Forward Characteristics $T_J = 25^\circ$

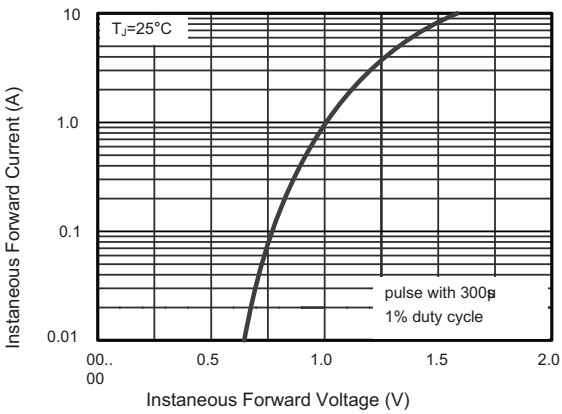


Fig.4 Typical Junction Capacitance

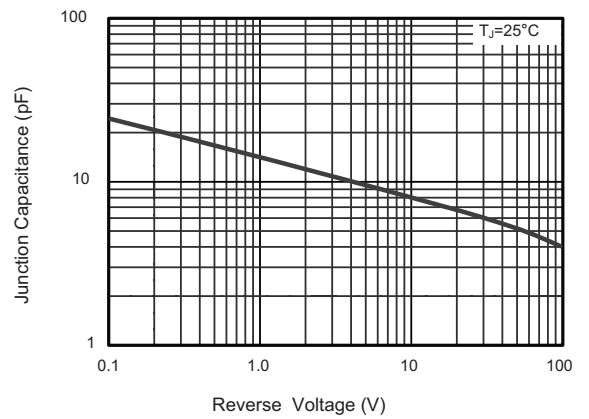
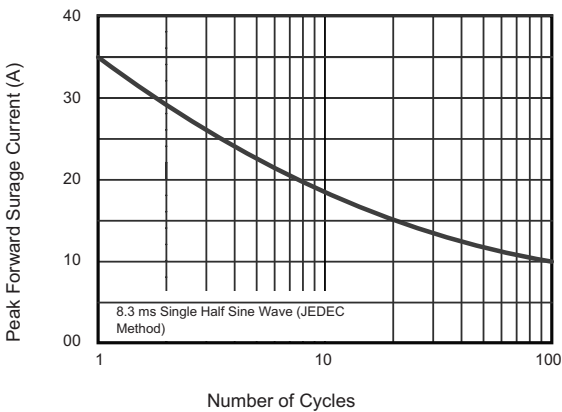
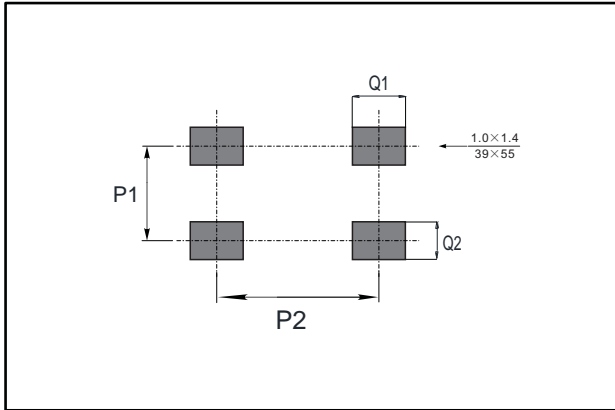


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.

Suggested Pad Layout



Dim	Min
P1	2.5
P2	4.3
Q1	1.4
Q2	1.0