

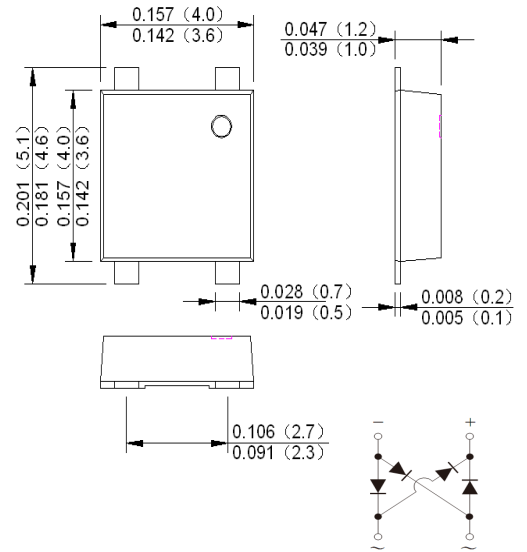
Single Phase 0.5Amp Glass passivated Bridge Rectifiers

UMB



Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
260°C/10 seconds at terminals



Mechanical Data

- Case :** Molded plastic body
- Terminals :** Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity :** Polarity symbol marking on body
- Mounting Position :** Any
- Weight :** 0.0017 ounce, 0.05 grams

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	UM05B	UM1B	UM2B	UM4B	UM6B	UM8B	UM10B	UNITS
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
Maximum average forward rectified current at $T_L=100^\circ C$ On glass-epoxy P.C.B (Note 1)	$I_{(AV)}$	0.5							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	25.0							A
Rating for fusing (t=8.3ms, $T_a=25^\circ C$)	I_t^2	2.59							A^2_s
Maximum instantaneous forward voltage at 0.5A	V_F	1.0							V
Maximum DC reverse current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 125^\circ C$	I_R	2.0 200							μA
Typical junction capacitance (Note 2)	C_J	13.0							pF
Typical thermal resistance	R_{qJA}	81.0							$^\circ C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ C$

Note: 1. Mounted on glass epoxy PC board with 1.3*1.3mm solder pad
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

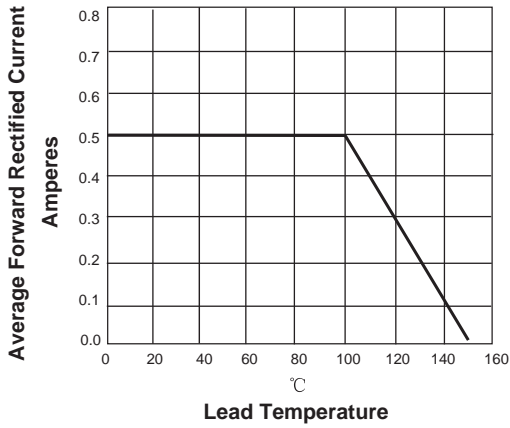


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

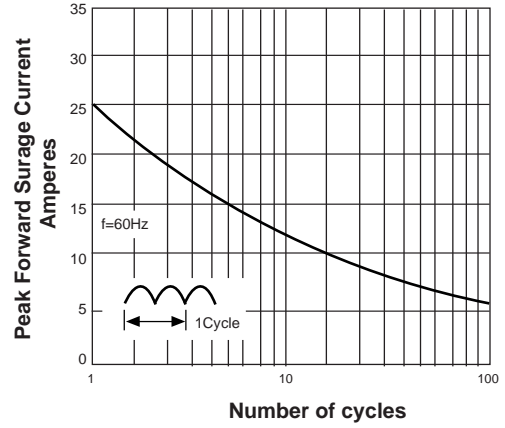


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

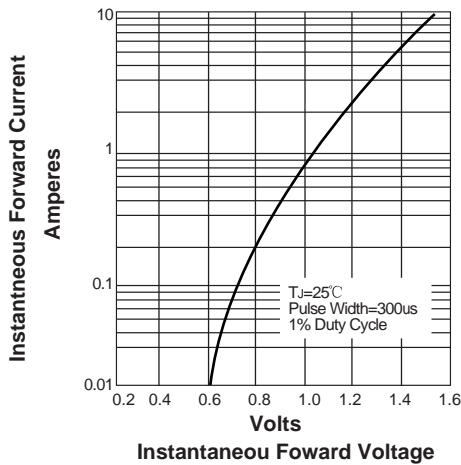
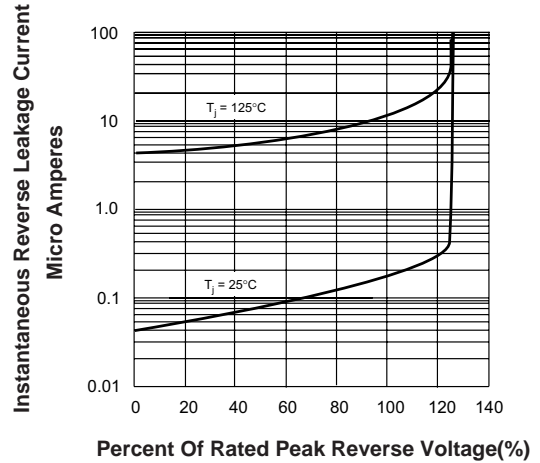
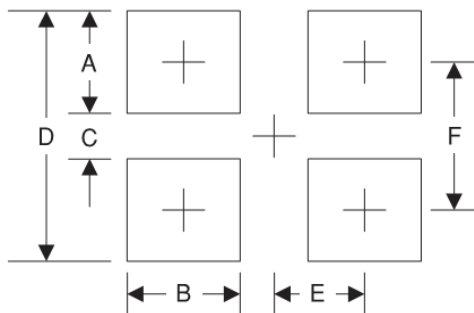


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



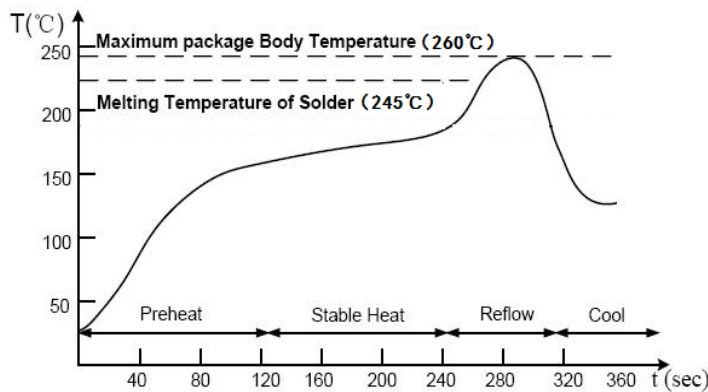
Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.4	0.055
B	1.0	0.039
C	3.20	0.125
D	6.00	0.236
E	1.25	0.049
F	4.30	0.169

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Suggested Soldering Temperature Profile

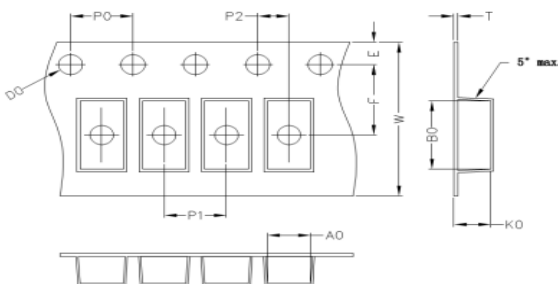


Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Carrier Dimension(mm)



A0	B0	K0	D0	E	F
4.25	5.25	1.35	1.55	1.75	5.50
P0	P1	P2	T	W	Tolerance
4.0	8.0	2.0	0.25	12	0.1

Package Specifications

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
UMB	11'	278	5	280	10	355*310*310	80