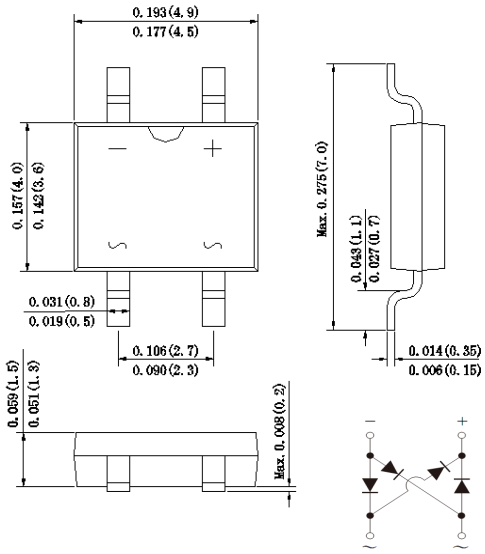
MB10F-GKA-CN

Single Phase 1.0Amp Glass Passivated Bridge Rectifiers

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℃/10 seconds at terminals

MBF



Dimensions in inches and (millimeters)

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 : 0.0027 ounce, 0.078 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MB10F-GKA-CN	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC blocking voltage	V_{DC}	1000	V
Maximum average forward rectified current at T_L=100℃ On glass-epoxy P.C.B (Note 1)	$I_{(AV)}$	1.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	35.0	A
Rating for fusing (t=8.3ms, Ta=25℃)	I^2t	5.08	A^2s
Maximum instantaneous forward voltage at 1.0A	V_F	1.0	V
Maximum DC reverse current T_A =25℃ at rated DC blocking voltage T_A=125℃	I_R	2.0 200	u A
Typical junction capacitance (Note 2)	C_J	18.0	pF
Typical thermal resistance	R_{qJA}	76.0	°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150	°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.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

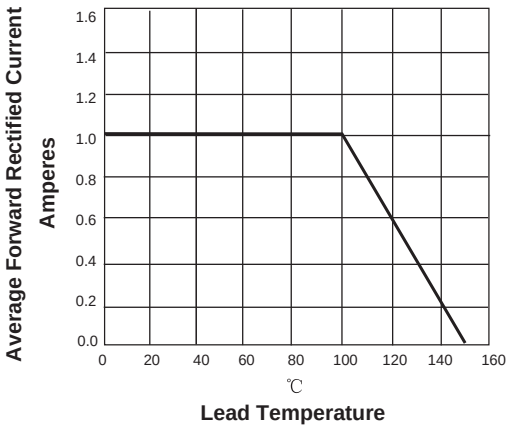


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

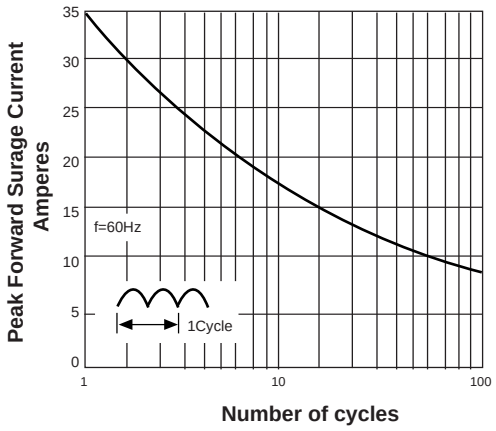


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

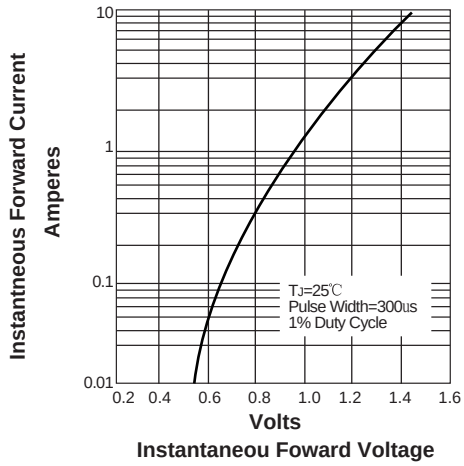
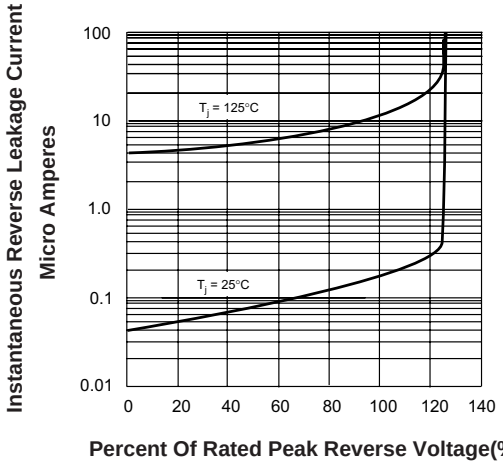
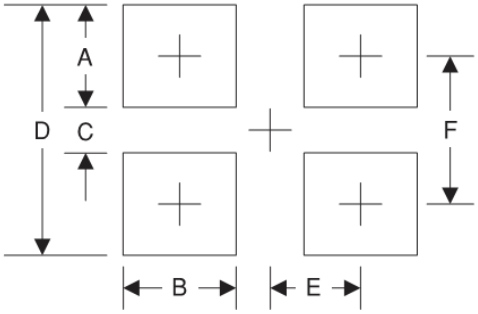


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

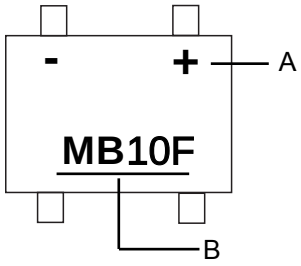


Suggested Pad Layout



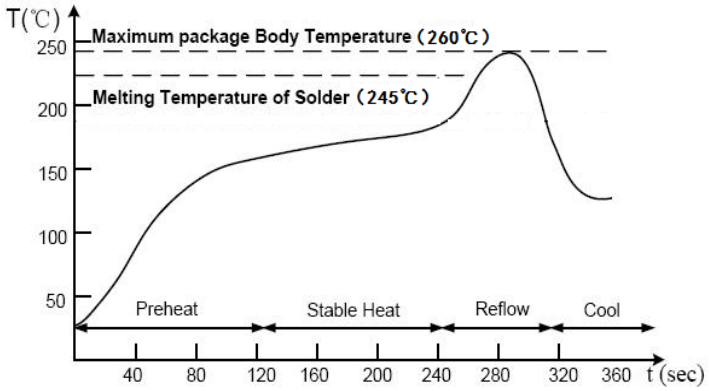
Symbol	Unit (mm)	Unit (inch)
A	1.7	0.067
B	1.0	0.039
C	4.40	0.173
D	8.10	0.319
E	1.25	0.049
F	6.30	0.248

Marking



Symbol	Explanation
A	Polarity Symbol
B	MB10F

Suggested Soldering Temperature Profile

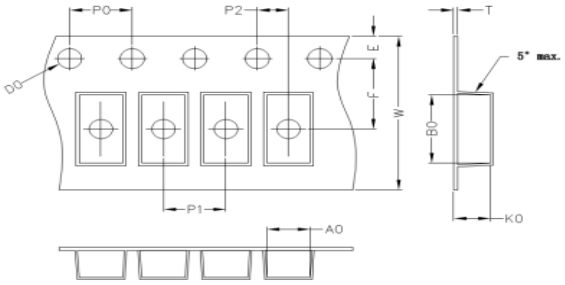


Note

- 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
5.05	7.10	1.65	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)
MBF	13'	330	5	338	10	365*365*360	80

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