SILICON BRIDGE RECTIFIERS

MB4F--MB10F

FEATURES

Lead-free

- Glass：passivated chip junctions
- High surge overload rating: 30A peak
- Saves space on printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs. (2.3kg) tension

MECHANICAL DATA

- Case: Molded plastic body over passivated junctions
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	MB4F	MB6F	MB8F	MB10F	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	280	420	560	700	V
DC Blocking Voltage	V_{DC}	400	600	800	1000	V
Maximum average forward Output current @T_A=25℃	$I_{F(AV)}$	0.8				A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	30				A

Thermal Characteristics

Characteristic	Symbol	MB4F	MB6F	MB8F	MB10F	UNITS
Typical junction capacitance per leg (NOTE 1)	C_J	8				p F
Operating junction temperature range	T_J	- 55 ---- + 150				℃
Storage temperature range	T_{STG}	- 55 ---- + 150				℃

Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	MB4F	MB6F	MB8F	MB10F	UNITS
Maximum instantaneous forward voltage at 0.4 A	V_F	1.0				V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	5.0 0.1				μ A m A

NOTES: (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

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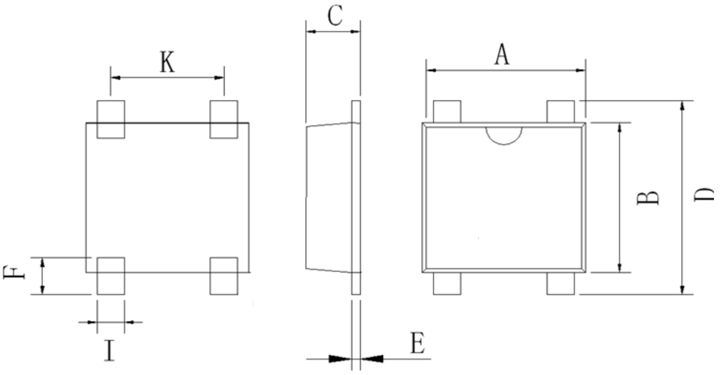
PACKAGE OUTLINE DIMENSIONS



MBF		
Dim	Min	Max
A	4.6	5
B	4.4	4.8
C	1.1	1.3
D	5.4	5.8
E	0.15	0.25
F	0.7	1.1
I	0.5	0.8
K	2.35	2.65
All Dimensions in mm		

PACKAGE INFORMATION

Device	Package	Shipping
MB4F--MB10F	MBF	5000/Tape&Reel

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FIG.1 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

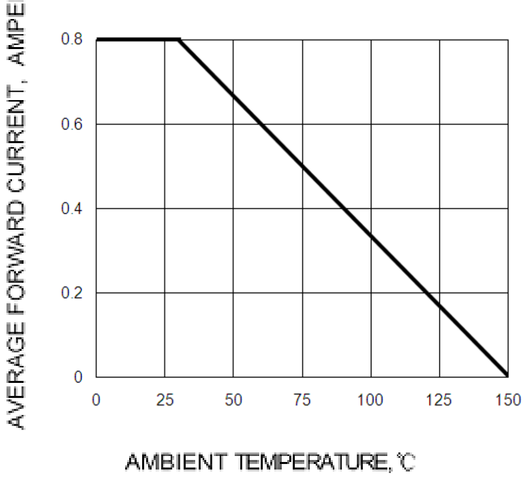

FIG.3 – TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

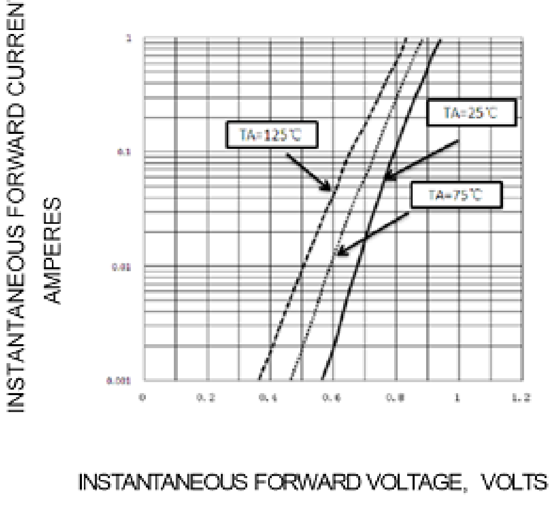

FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

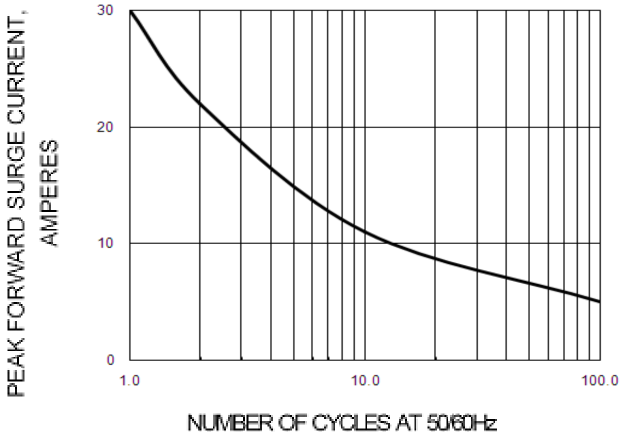

FIG.4 – TYPICAL REVERSE CHARACTERISTIC

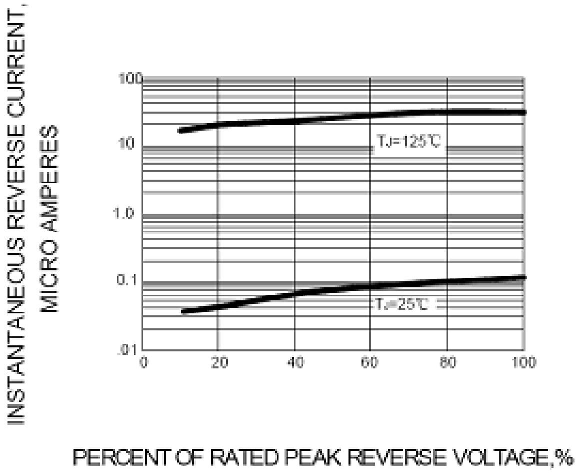

FIG.5 – TYPICAL JUNCTION CAPACITANCE PER ELEMENT