

SILICON BRIDGE RECTIFIERS

MMB1G--MMB10G

FEATURES

- 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



Lead-free

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	MMB1G	MMB2G	MMB4G	MMB6G	MMB8G	MMB10G	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	70	140	280	420	560	700	V
DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum average forward Output current @TA=25°C	$I_{F(AV)}$	0.5 ¹⁾ 0.8 ²⁾						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	30						A

Thermal Characteristics

Characteristic	Symbol	MMB1G	MMB2G	MMB4G	MMB6G	MMB8G	MMB10G	UNITS
Typical junction capacitance per leg (NOTE 3)	C_J	8						p F
Typical thermal resistance per leg (NOTE 1) (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$ $R_{\theta JC}$	85 20 30						°C/W
Operating junction temperature range	T_J	- 55 ---- + 150						°C
Storage temperature range	T_{STG}	- 55 ---- + 150						°C

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

Characteristic	Symbol	MMB1G	MMB2G	MMB4G	MMB6G	MMB8G	MMB10G	UNITS
Maximum instantaneous forward voltage at 0.4 A	V_F	1.0						V
Maximum reverse current @TA=25°C at rated DC blocking voltage @TA=100°C	I_R	5.0 0.5						μ A m A

NOTES: (1) On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads

(2) On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad

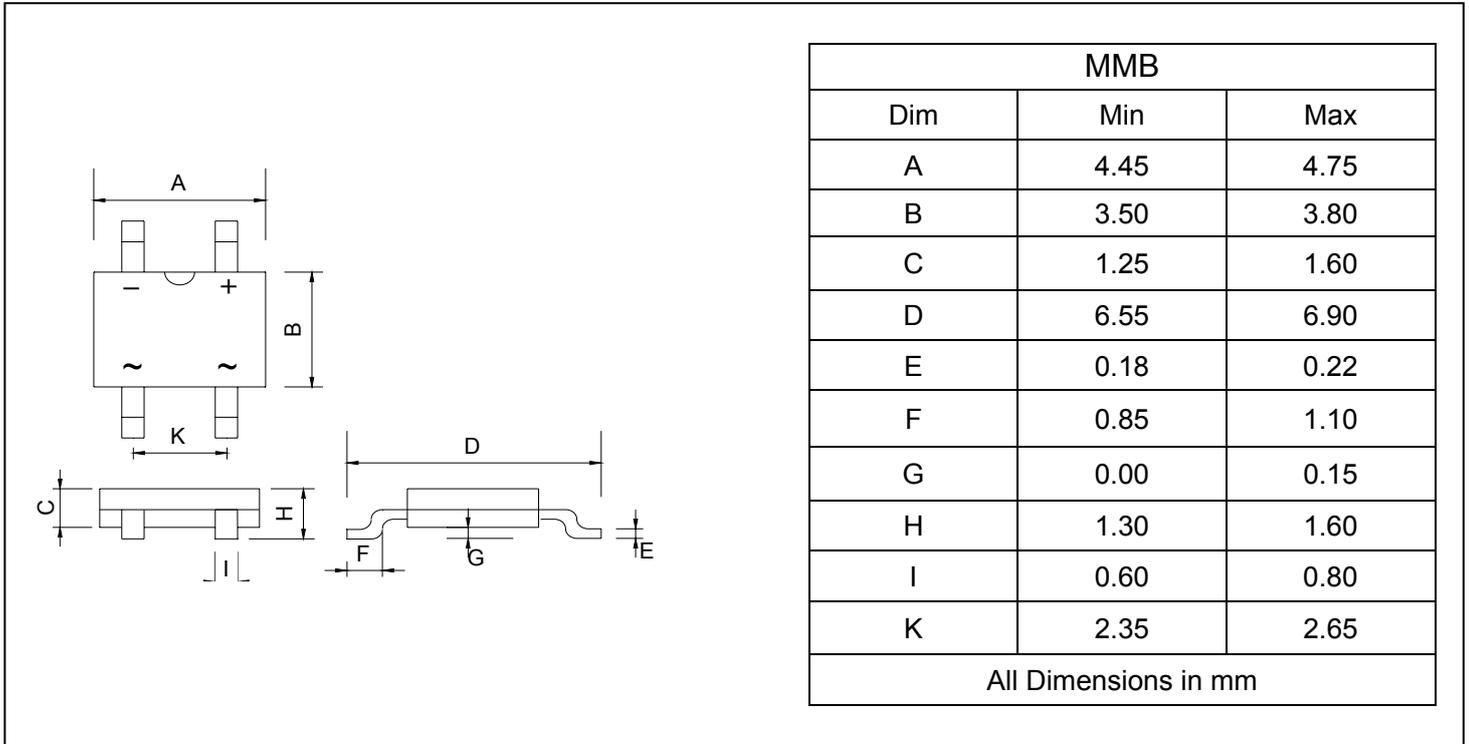
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts



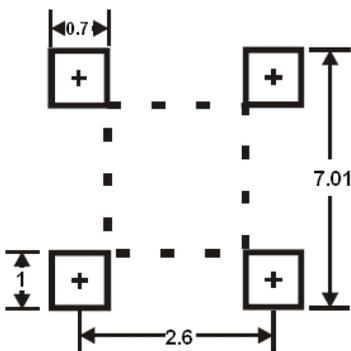
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PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMB1G--MMB10G	MMB	5000/Tape&Reel



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MMB1G--MMB10G

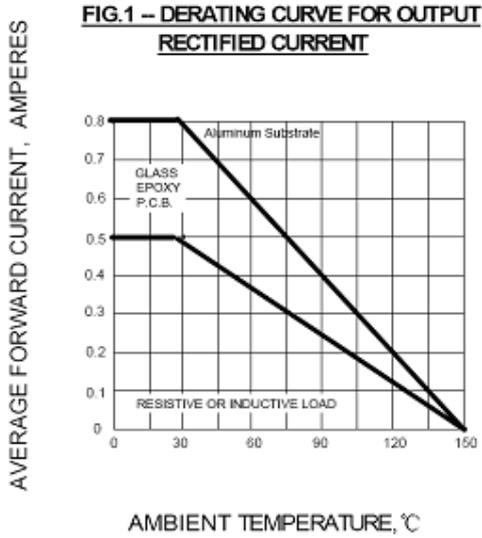


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

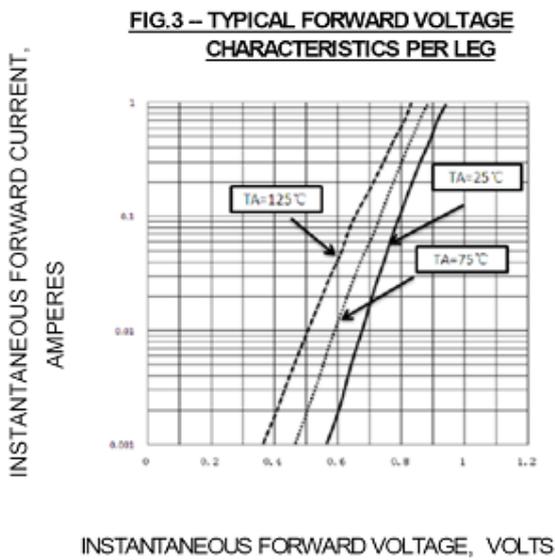
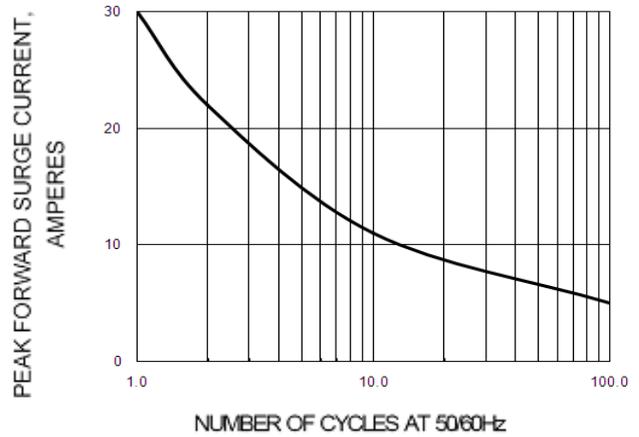


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

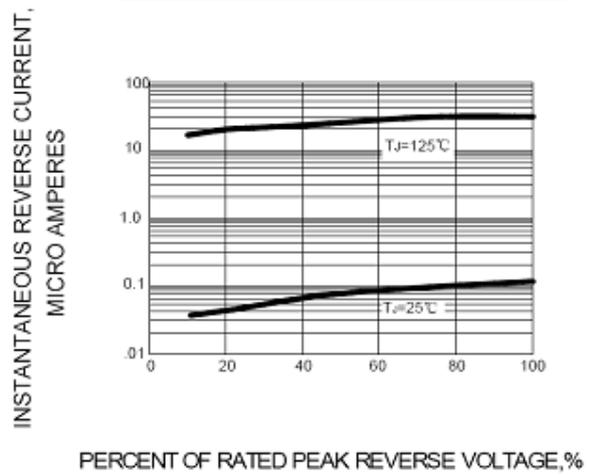


FIG.5 – TYPICAL JUNCTION CAPACITANCE PER ELEMENT

