Kingtronics®

MB1M thru MB10M

FEATURE

CURRENT 0.5 Amperes VOLTAGE 100 to 1000

Plastic package has Underwriters Laboratory Flammability

Classification 94V-0

Glass passivated chip junctions

High surge overload rating: 30A peak

Saves space on printed circuit boards

Recommended for non-automotive applications

MECHANICAL DATA

Case: Molded plastic body over passivated junctions

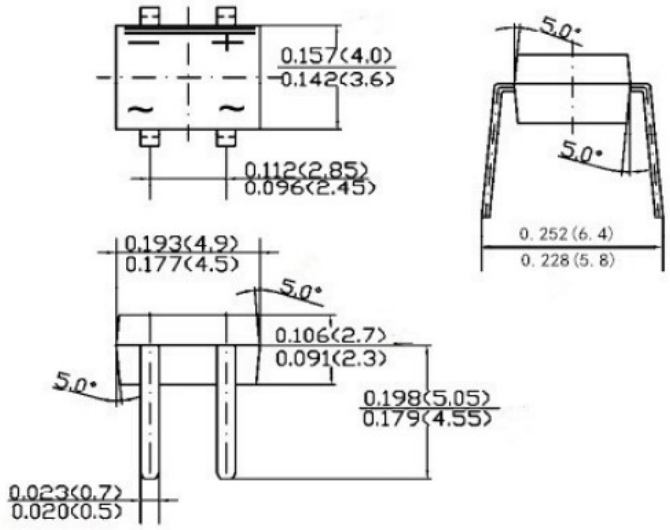
Terminals: Plated leads solderable per MIL-STD-750,

Method 2026

Mounting Position: Any

Weight: 0.078 oz., 0.22 g

MBM



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

(TA=25oC unless otherwise noted)

Type Number	Symbols	MB1M	MB2M	MB4M	MB6M	MB8M	MB10M	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	Volts
Maximum average forward output rectified current (see Fig.1) on glass-epoxy P.C.B.	$I_{(AV)}$	0.5						Amp
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30						Amp
Rating for fusing (t < 8.3ms)	I^2t	5.0						Asec
Maximum instantaneous forward voltage drop per leg at 0.5A	VF	1.0						Volt
Maximum DC reverse current at TA= 25oC	I_R	5.0						μA
rated DC blocking voltage per leg TA= 125oC		100						
Typical thermal resistance per leg	R_I JA	85						℃/W
Typical junction capacitance per leg (3)	CJ	13						pF
Operating junction and storage temperature range	**TJ, TSTG**	-55 to + 150						℃

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

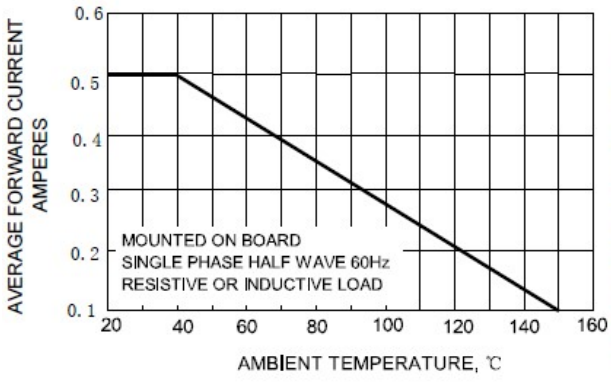


FIG.2-MAXIMUM NON-REPETITVE SURGE CURRENT

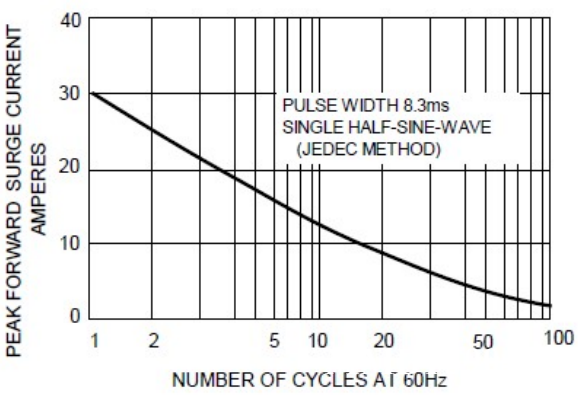


FIG.3-TYPICAL REVERSE CHARACTERISTICS

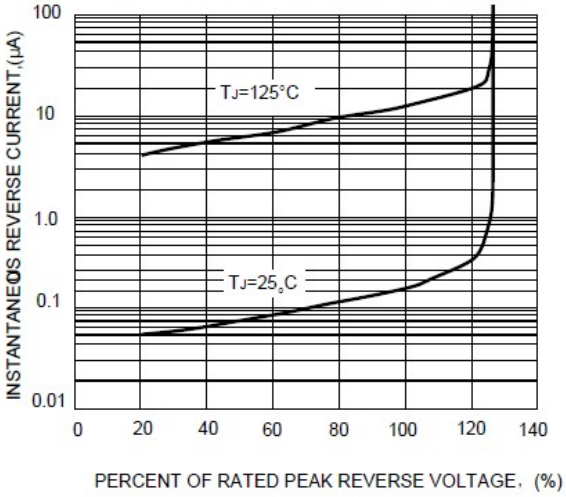


FIG.4-TYPICAL FORWARD CHARACTERISTICS

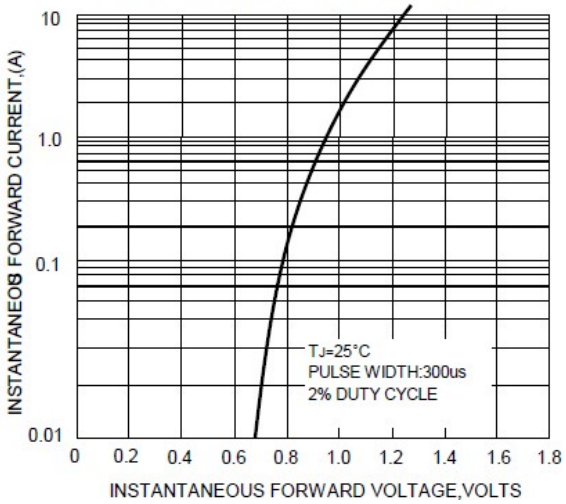


FIG.5-TYPICAL JUNCTION CAPACITANCE