



RMB01F THRU RMB10F

VOLTAGE RANGE 50 to 1000 Volts  
CURRENT 1.0 Ampere

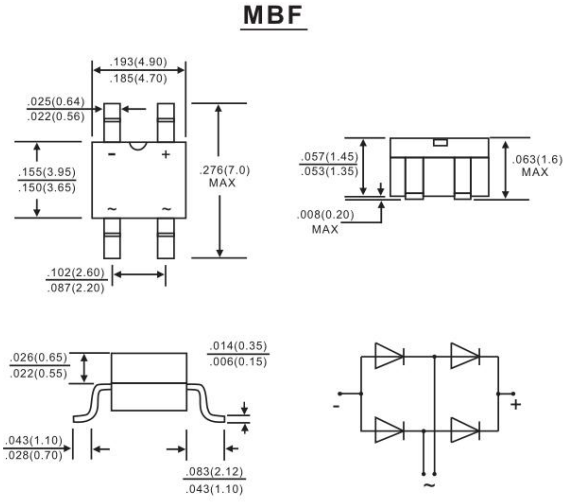


Features

- Glass passivated chip:50mil
- Glass passivated chip junction
- Ideal for surface mounted applications
- Low leakage
- High forward surge current capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals

Mechanical Data

- Case: Molded plastic body
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Molded on body
- LeadP: Plated terminals solderable per MIL-STD-202E method 208C
- Weight: 0.004 ounce, 0.12 gram



Dimensions in inches and (millimeters)

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 derate current by 20%

TYPE NUMBER	SYMBOL	RMB 01F	RMB 02F	RMB 03F	RMB 04F	RMB 06F	RMB 08F	RMB 10F	UNIT
Maximum Reverse Peak Repetitive Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current, 0.06"(1.5mm) lead length at $T_A=100^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	3.7							$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage drop Per Bridge element 1.0A	$V_F$	1.3							Volts
Maximum Reverse Current at rated DC blocking voltage per element	$T_A=25^\circ\text{C}$	5							$\mu\text{Amps}$
	$T_A=125^\circ\text{C}$	120							
Maximum Reverse Recovery Time <sup>(Note 3)</sup> $T_J=25^\circ\text{C}$	$T_{RR}$	150			250	500		250	
Typical Junction Capacitance <sup>(NOTE 1)</sup>	$C_J$	13							pF
Typical Thermal Resistance <sup>(NOTE 2)</sup>	$R_{\theta JA}$	80							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on P.C.B. with 0.033"×0.043"(1.00mm×1.30mm) copper pads.
3. Reverse Recovery Test Conditions:  $I_f=0.5\text{mA}, I_r=1.0\text{mA}, I_{rr}=0.25\text{A}$ .



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Ratings and Characteristic Curves ( $T_A=25^\circ\text{C}$  unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

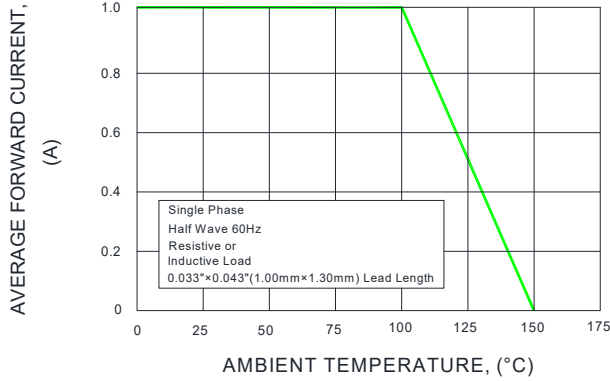


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

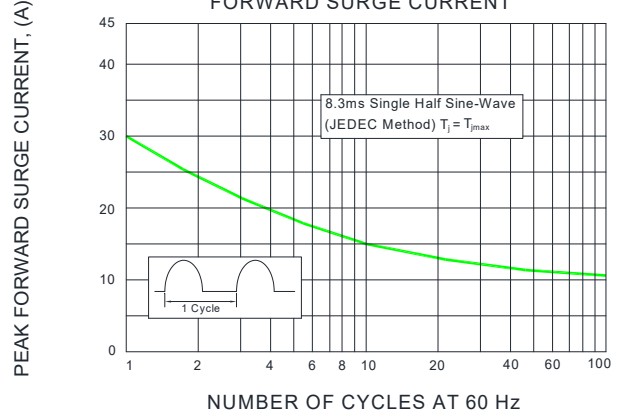


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

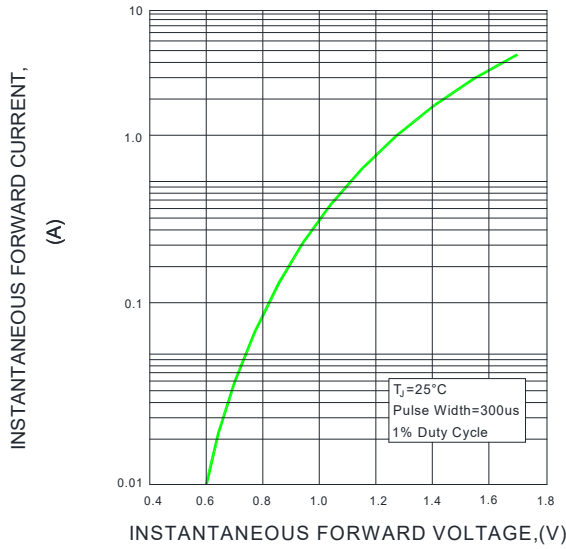


FIG.4-TYPICAL REVERSE CHARACTERISTICS

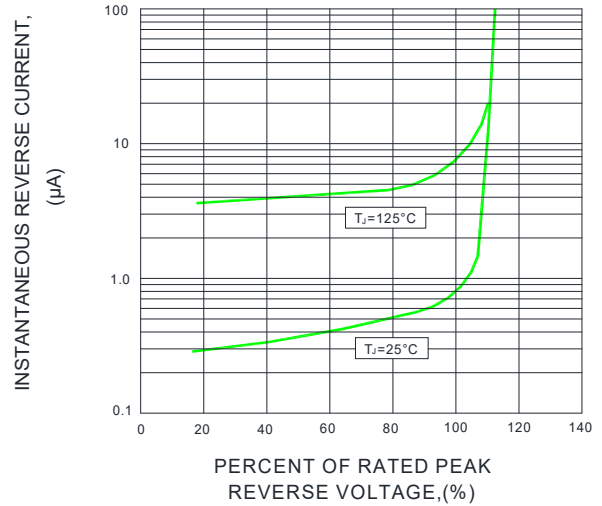


FIG.5-TYPICAL JUNCTION CAPACITANCE

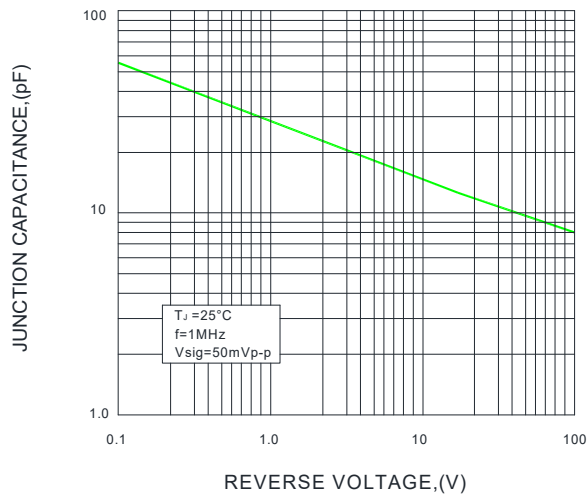
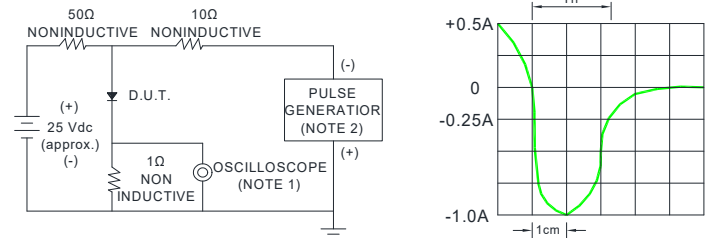


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

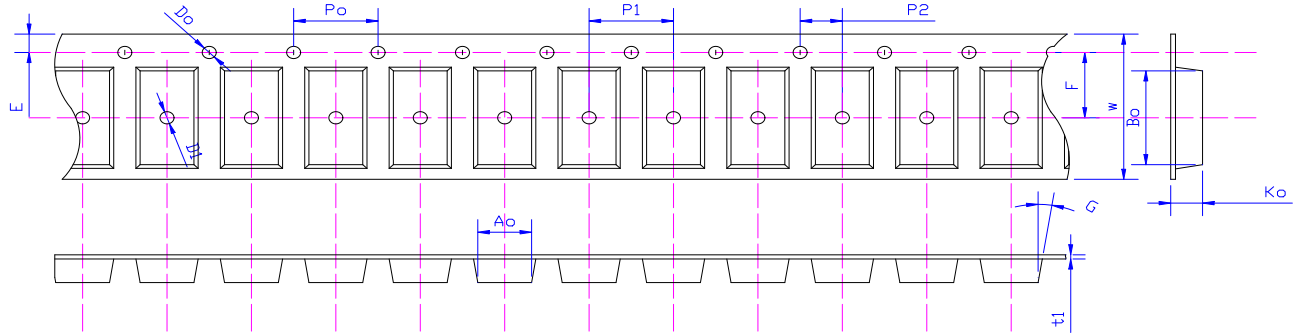


- NOTES : 1. Rise Time=7ns max. Input Impedance= 1 magohm. 22pF  
 2. Rise time=10ns max. Source Impedance= 50 ohms

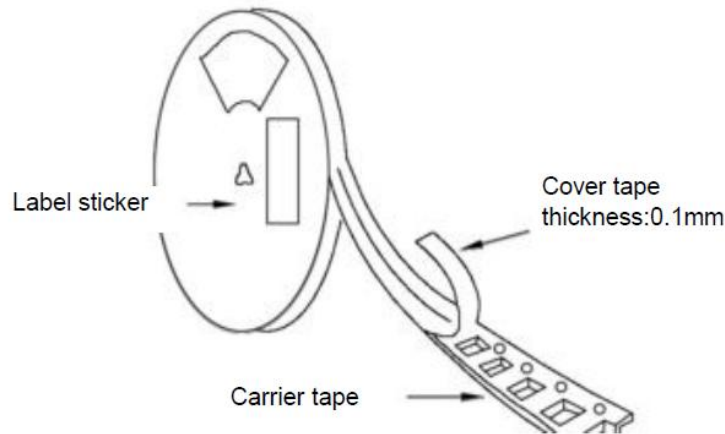
SET TIME BASE FOR 50/100ns/cm



Package Reel Information



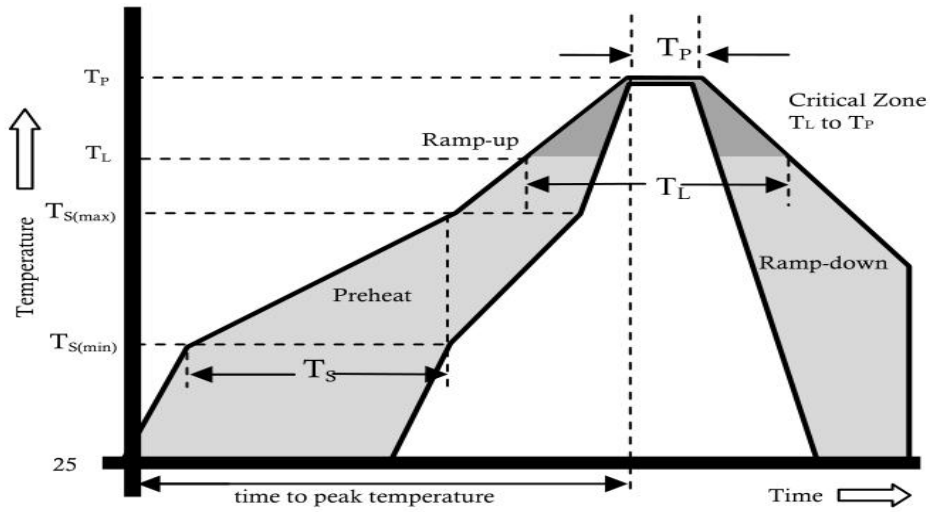
Specifications	Ao	Bo	Ko	Po	W	t1
MBF	5.05±0.10	7.10±0.10	1.65±0.10	4.00±0.1	12.0±0.10	0.30±0.02



DEVICE TYPE	Tape Width	13"Reel			07"Reel			
		Q'TY/REEL(pcs)	BOX/CARTOO N	Q'TY/CARTON (pcs)	Q'TY/REEL(pcs)	REEL/BOX	BOX/CARTOO N	Q'TY/CARTON (pcs)
MBF	13mm	5000	8	80000	NA	NA	NA	NA



Reflow Profile



Reflow Condition		Pb-Free Assembly
Pre Heat	Temperature Min.	+150°C
	Temperature Max.	+200°C
	Time(Min to Max)	60-180 secs.
Average ramp up rate(Liquidus Temp( $T_L$ ) to peak)		3°C/sec. Max.
$T_S$ (max) to $T_L$ - Ramp-up Rate		3°C/sec. Max.
Reflow	Temperature ( $T_L$ )(Liquidus)	+217°C
	Temperature ( $T_L$ )	60-150 secs.
Peak Temp ( $T_p$ )		+(260+0/-5)°C
Time within 5°C of actual Peak Temp ( $T_p$ )		25 secs.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to peak Temp ( $T_p$ )		8 min. Max.
Do not exceed		+260°C



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