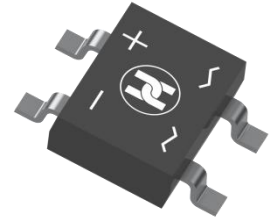
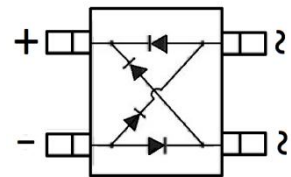


**BRIDGE RECTIFIER**
**FEATURES**

- Low Reverse voltage leakage current
- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High forward surge current capability
- Small Surface Mount device


**MB-F**

**MECHANICAL DATA**

- Case: MB-F
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.13 grams (approximate)

**MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$  unless otherwise noted)**

Parameter	Symbol	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Unit	
Repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V	
DC Reverse Voltage	$V_R$	50	100	200	400	600	800	1000	V	
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V	
Mean rectifying current	$I_F$	1.0								A
Non-Repetitive Peak Forward Surge Current @ $t = 8.3 \text{ ms}$	$I_{FSM}$	25								A
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	60								$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	-55 ~ +150								$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150								$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$  unless otherwise specified)**

Parameter	Symbol	Min	Max	Unit	Conditions
Forward voltage	$V_F$		1.1	V	$I_F = 1.0\text{A}$
Reverse current $T = 25^\circ\text{C}$	$I_R$		5	$\mu\text{A}$	$V_R = V_{RRM}$
Reverse current $T = 125^\circ\text{C}$	$I_R$		500	$\mu\text{A}$	$V_R = V_{RRM}$
Junction capacitance	$C_J$		13	pF	$V = 4V_{DC}, f = 1\text{MHz}$

**BRIDGE RECTIFIER**

**Typical Characteristics**

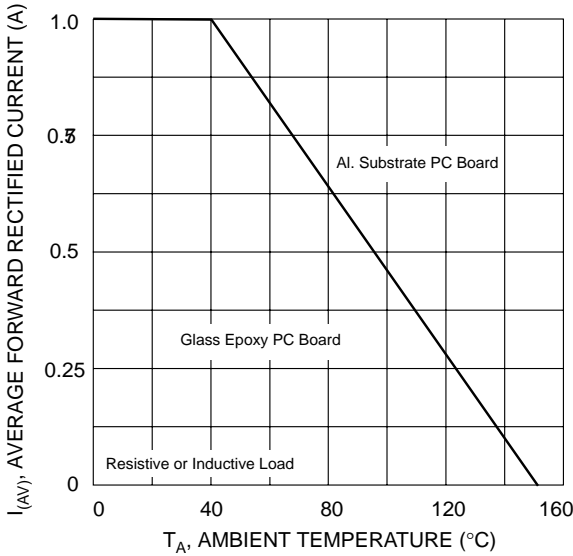


Fig. 1 Output Current Derating Curve

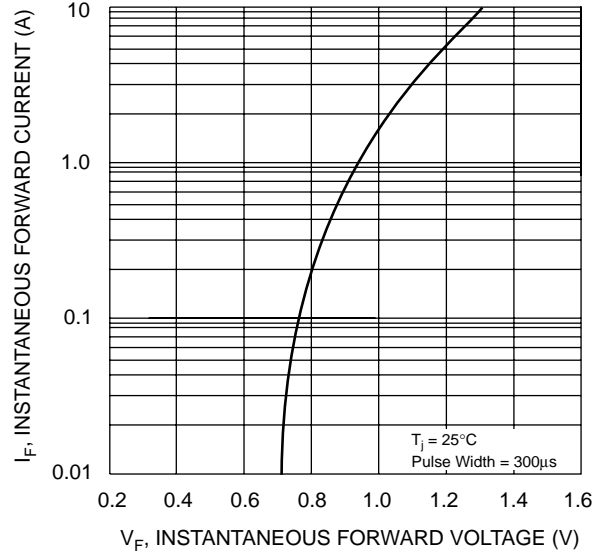


Fig. 2 Typical Forward Characteristics (per leg)

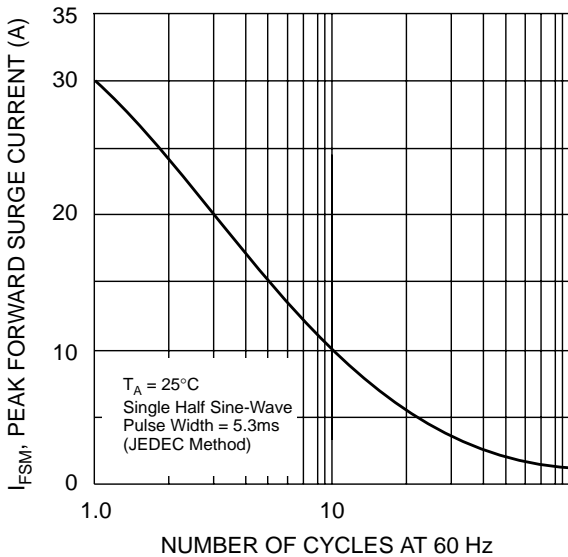


Fig. 3 Maximum Peak Forward Surge Current (per leg)

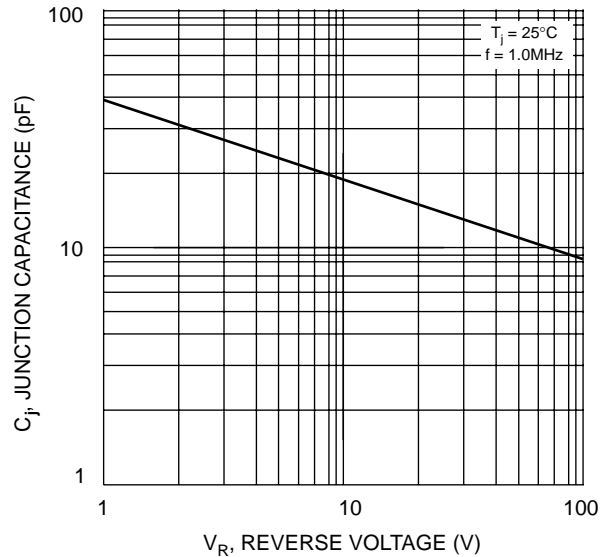


Fig. 4 Typical Junction Capacitance

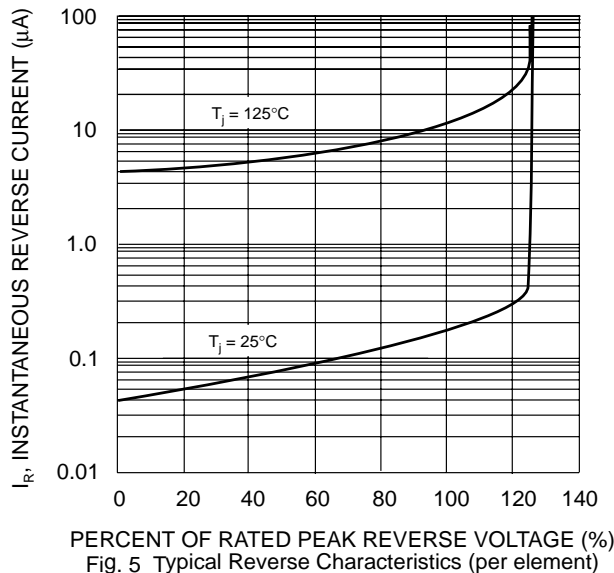
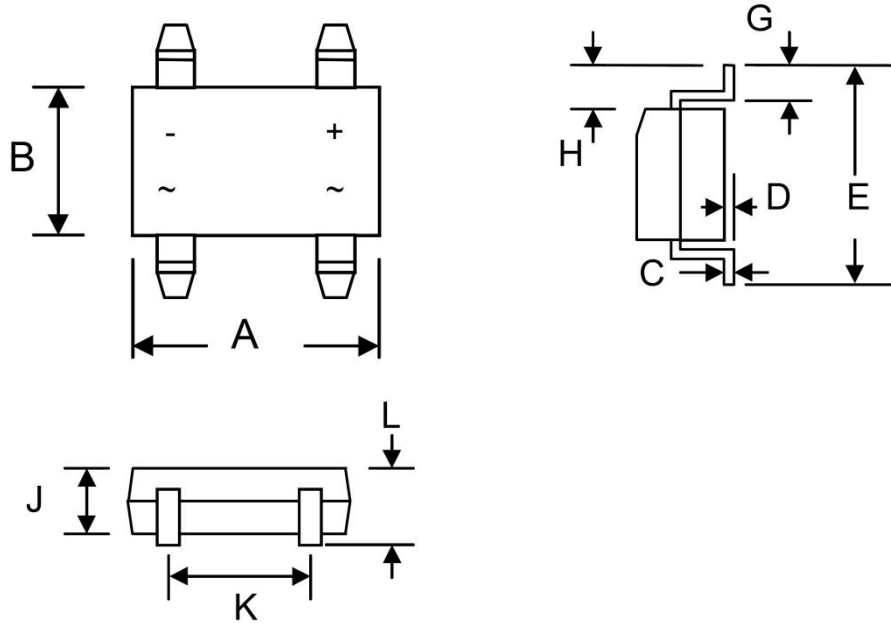
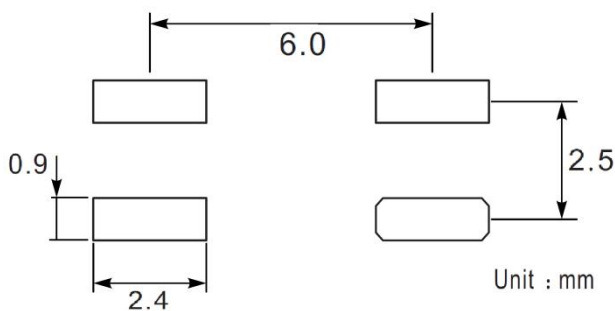


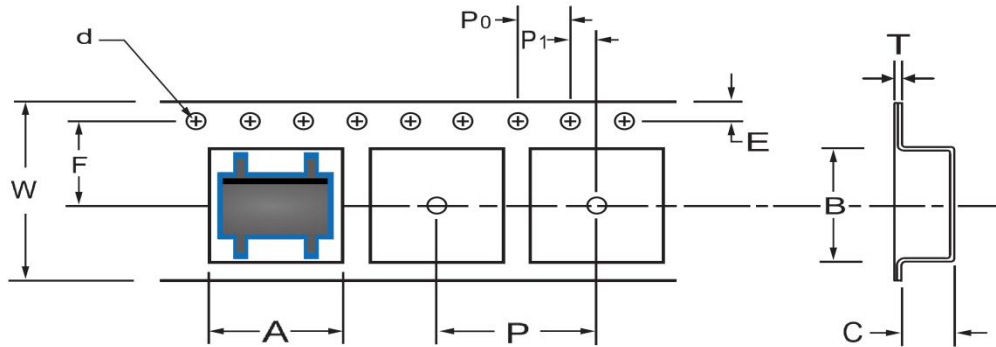
Fig. 5 Typical Reverse Characteristics (per element)

**BRIDGE RECTIFIER**
**MB-F Package Outline Dimensions**


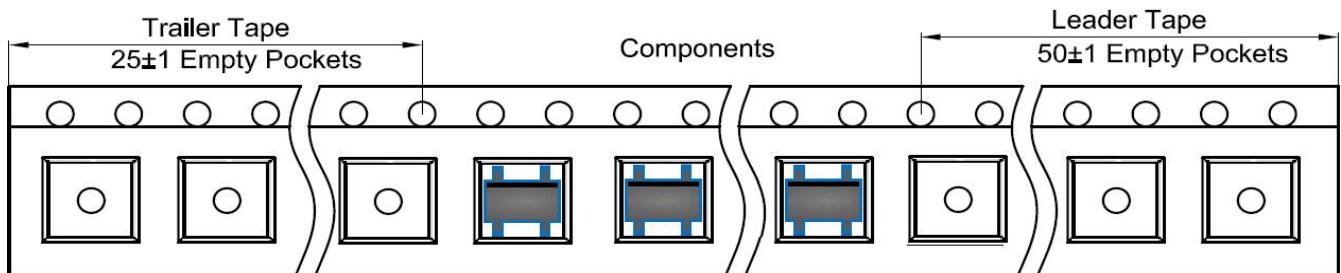
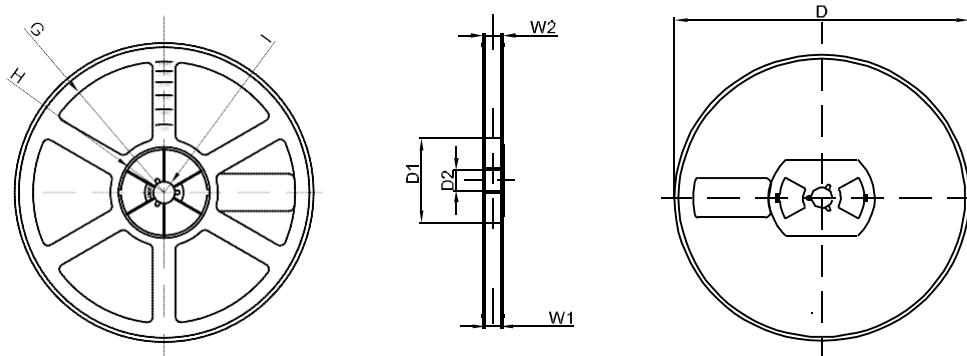
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.50	4.95	0.177	0.195
B	3.60	4.10	0.142	0.161
C	0.15	0.35	0.006	0.014
D	-----	0.20	—	0.008
E	6.40	7.00	0.252	0.276
G	0.50	1.10	0.020	0.043
H	1.30	1.70	0.051	0.067
J	1.20	1.60	0.047	0.063
K	2.30	2.70	0.091	0.106
L	—	1.80	—	0.071

**MB-F Suggested Pad Layout**

**Note:**

1. Controlling dimension: in millimeters
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

**BRIDGE RECTIFIER**
**MB-F Tape and Reel**
**MB-F Embossed Carrier Tape**


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
MB-F	5.00	7.24	1.95	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

**MB-F Tape Leader and Trailer**

**MB-F Reel**


DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
13" DIA	Ø330	75.0	13.00	R165	R37.50	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1