

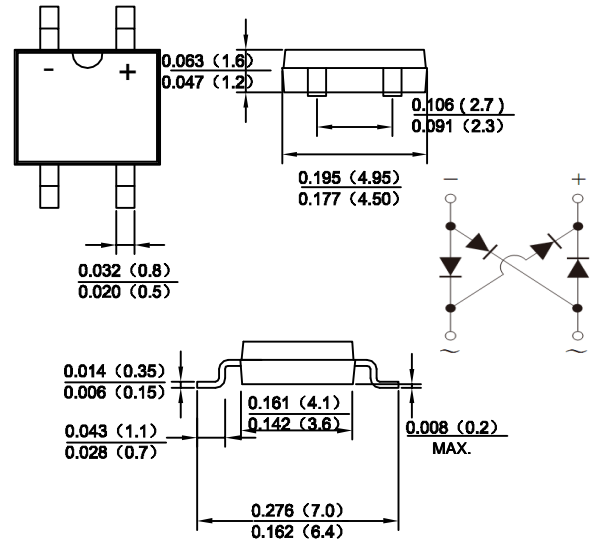
## Features

- Schottky Brrier Chip
- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 50A Peak
- Plastic Case Material has UL Flammability Classification Rating 94V-0

## Mechanical Data

- Case: MB-F, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version,

### MBF



dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	KMB 22F	KMB 23F	KMB 24F	KMB 245F	KMB 25F	KMB 26F	KMB 28F	KMB 210F	KMB 215F	KMB 220F	KMB 225F	UNITS	
Peak Repetitive Reverse Voltage	$V_{RRM}$	20	30	40	45	50	60	80	100	150	200	250	V	
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	31	35	42	56	70	105	140	175		
DC Blocking Voltage	$V_{DC}$	20	30	40	45	50	60	80	100	150	200	250		
Average Rectified Output Current ( Note1) @ $T_C=100^\circ\text{C}$	$I_F(AV)$	2.0											A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50											A	
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	10.375											$\text{A}^2\text{s}$	
Forward Voltage per element @ $I_F=2.0\text{A}$	$V_{FM}$	0.55			0.7			0.85		0.90		0.92		V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	$I_{RM}$	0.1						0.05						mA
		10						5						
Typical Junction Capacitance per leg	$C_j$	28											pF	
Typical Thermal Resistance per leg ( Note2)	$R_{\theta JL}$	16											$^\circ\text{C}/\text{W}$	
Operating junction temperature range	$T_J$	-55 to +150											$^\circ\text{C}$	
Operating and Storage Temperature Range	$T_{STG}$	-55 to +150											$^\circ\text{C}$	

### Note:

1. Mounted on aluminum substrate PC board with  $1.3\text{mm}^2$  solder pad.
2. Thermal REsistance From Junction to LEAD

FIG. 1- FORWARD CURRENT DERATING CURVE

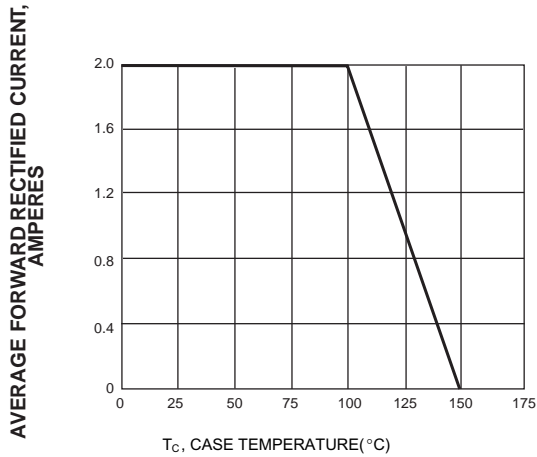


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

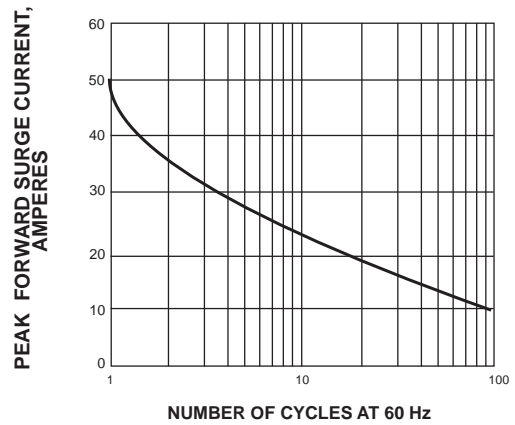


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

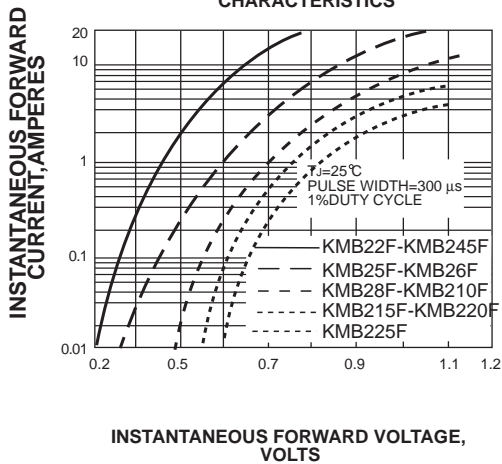


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

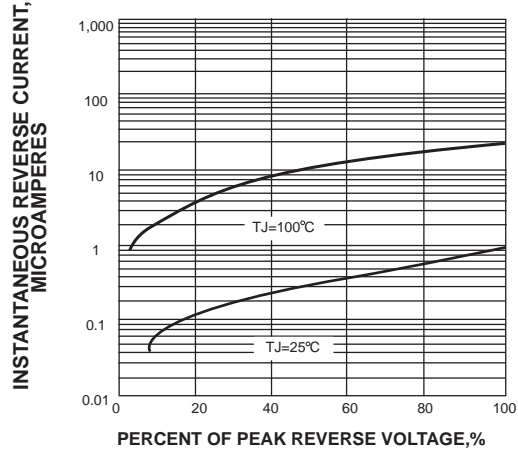


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE

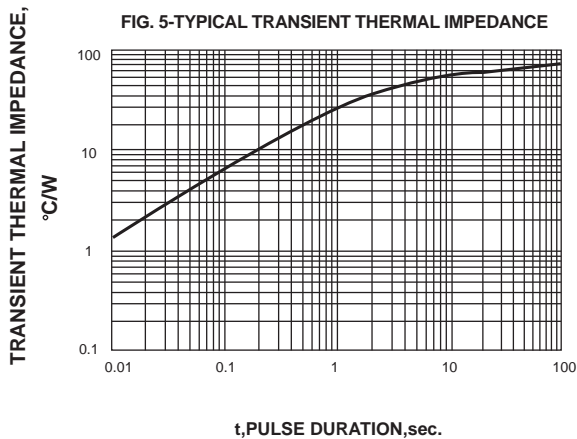
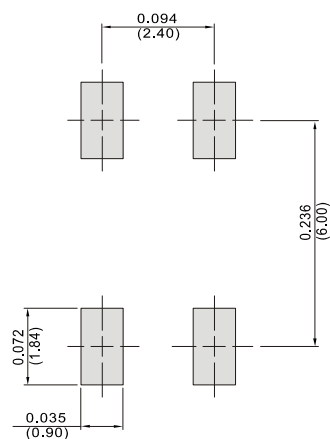


FIG.6 MOUNTING PAD LAYOUT



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