

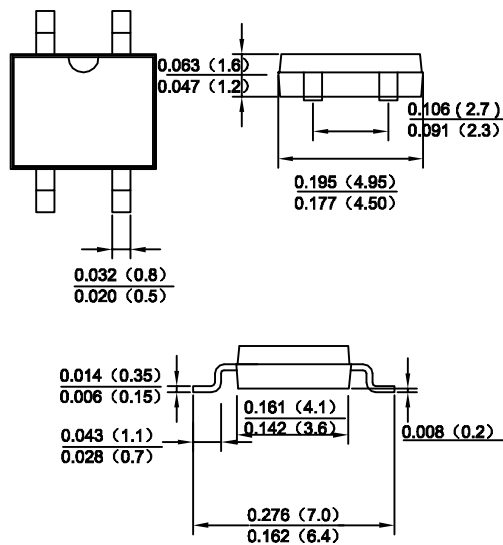
Features

- Schottky Brrier Chip
- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 30A 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 12F	KMB 13F	KMB 14F	KMB 145F	KMB 15F	KMB 16F	KMB 18F	KMB 110F	KMB 115F	KMB 120F	KMB 125F	UNITS	
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	250		
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	31	35	42	56	70	105	140	175	V	
DC Blocking Voltage	V_{DC}	20	30	40	45	50	60	80	100	150	200	250		
Average Rectified Output Current (Note1) @ $T_A = 90^{\circ}\text{C}$	I_O	1.0											A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30											A	
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	5.0											A^2s	
Forward Voltage per element @ $I_F = 1.0\text{AV}$	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)	$R_{\theta JA}$	75											$^{\circ}\text{C}/\text{W}$	
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 1.3mm^2 solder pad.
2. Thermal REsistance From Junction to Ambient

FIG. 1- FORWARD CURRENT DERATING CURVE

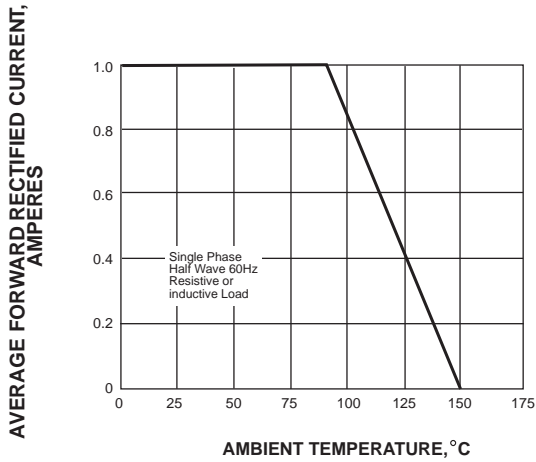


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

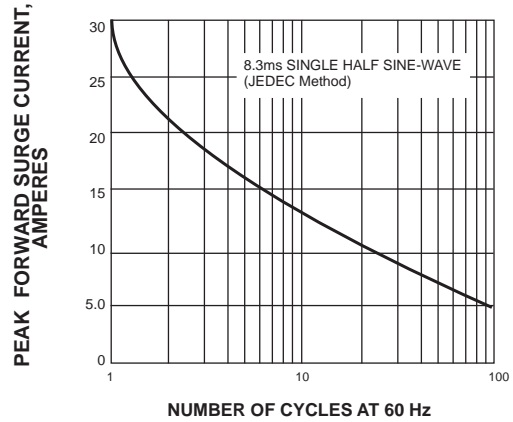


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

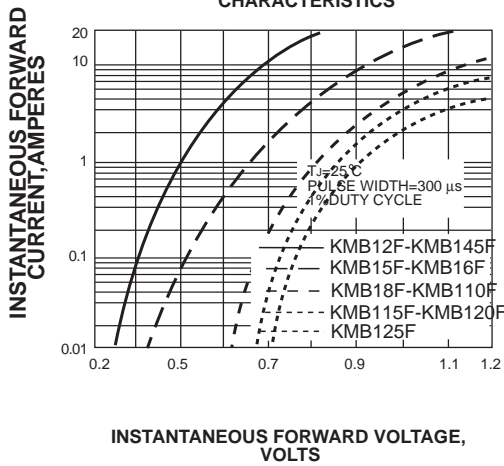


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

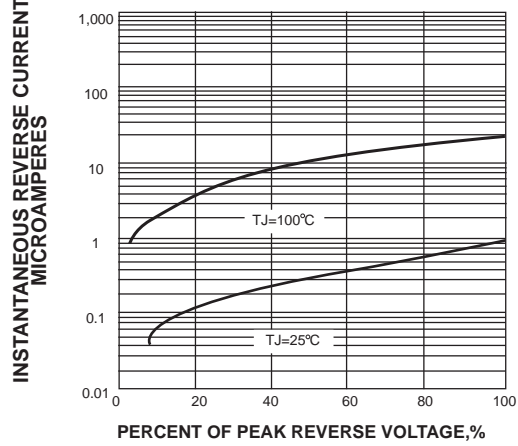


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE

