KMB12F THRU KMB125F

SINGLE PHASE 1.0 AMP SURFACE MOUNT SCHOTTKYBRIDGE RECTIFIER

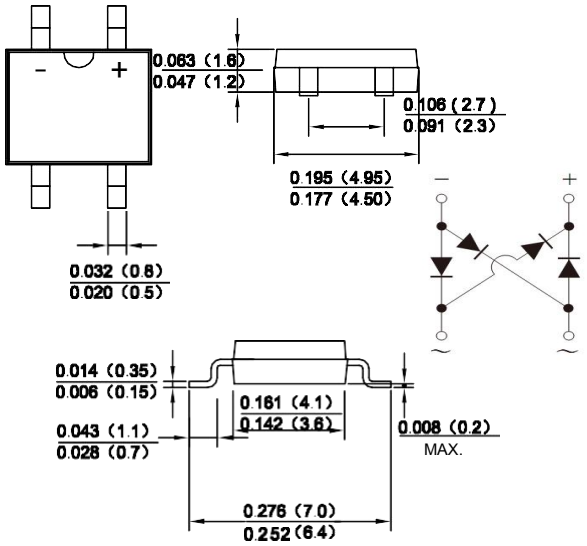
Features

- 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°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_C= 100°C	IF(AV)	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 < 8.3ms)	I^2t	3.735											A^2s
Forward Voltage per element @I_F =1.0A	V_{FM}	0.55				0.7		0.85		0.90		0.92	V
Peak Reverse Current @T_J = 25°C	I_{RM}	0.1						0.05					mA
At Rated DC Blocking Voltage @T_J = 100°C		10						5					
Typical Junction Capacitance (Note2)	C_j	50						35					pF
Typical Thermal Resistance	$R_{\theta JL}$	16											°C/W
Operating junction temperature range	T_J	-55 to +150											°C
Operating and Storage Temperature Range	T_{STG}	-55 to +150											°C

Note:

1. Mounted on aluminum substrate PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

KMB12F THRU KMB125F

SINGLE PHASE 1.0 AMP SURFACE MOUNT SCHOTTKYBRIDGE RECTIFIER

FIG. 1- FORWARD CURRENT DERATING CURVE

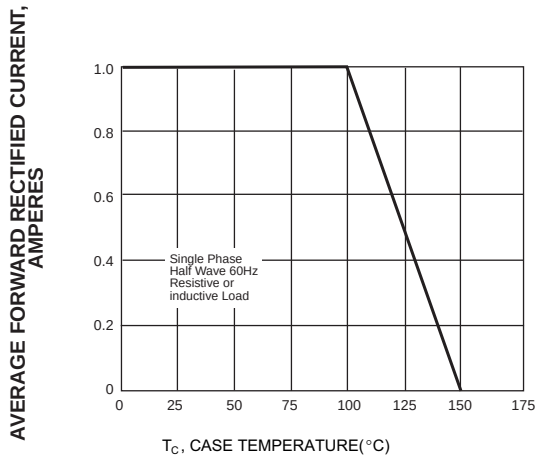


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

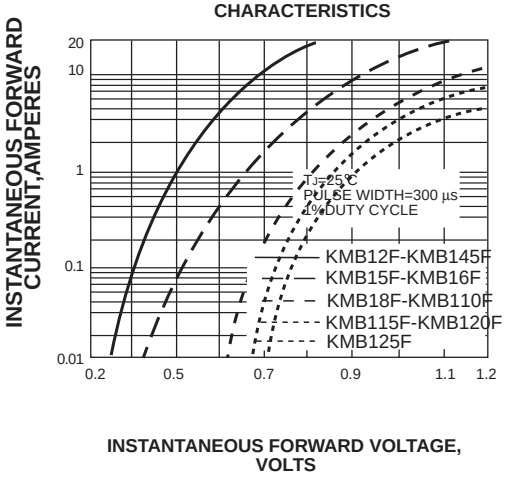


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

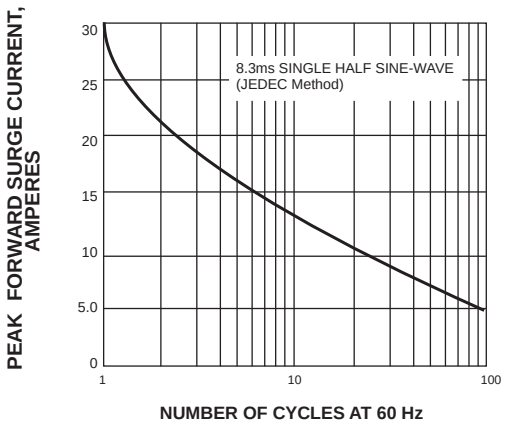


Fig. 4 Typical Junction Capacitance

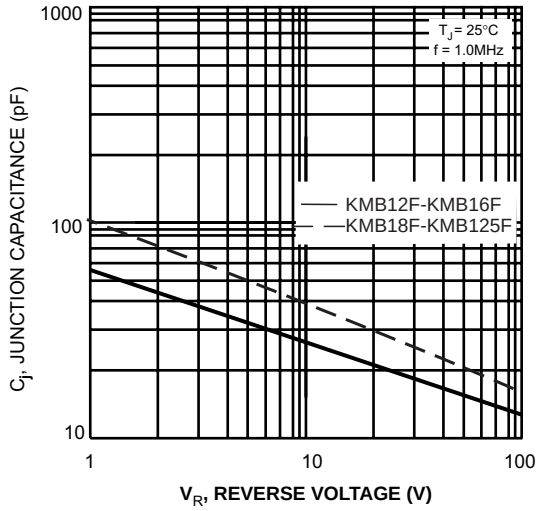


Fig. 5 Typical Reverse Characteristics

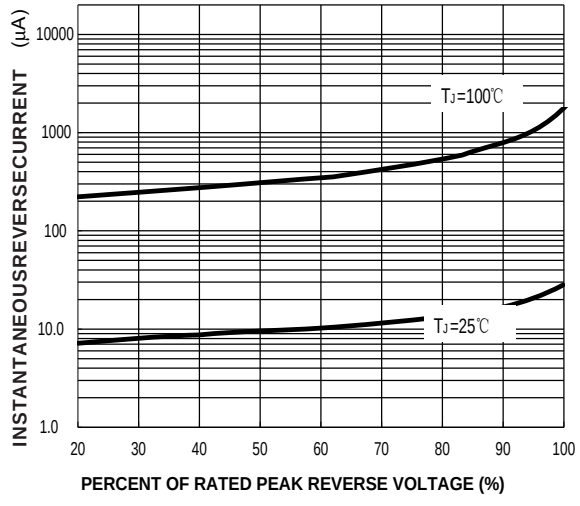


FIG.6 MOUNTING PAD LAYOUT