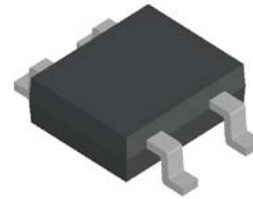




Features

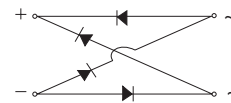
- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low forward voltage drop
- Low power losses, high efficiency
- High forward surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2011/65/EU and WEEE 2002/96/EC



MBF



RoHS
COMPLIANT



Mechanical Date

- **Case:**MBF
Molding compound meets
UL 94 V-0 flammability rating
- **Terminals:** Solder plated, solderable per
MIL-STD-750, Method 2026
- **Polarity:** Polarity symbols marked on body
- **Marking:** type number

Major Ratings and Characteristics

$I_{F(AV)}$	1.0A
V_{RRM}	20V to 100V
I_{FSM}	30A
V_F	0.5V,0.55V,0.7V,0.85V
$T_{J,max.}$	125°C,150°C

Maximum Ratings & Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Symbol	KMB 12F	KMB 14F	KMB 16F	KMB 18F	KMB 110F	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	V
Maximum RMS reverse voltage	V_{RMS}	14	28	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	V
Maximum average forward output rectified current at T_L (see Fig1.)	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30					A
Thermal resistance from junction to ambient per leg	$R_{\theta JA}^{(1)}$	85					°C/W
Thermal resistance from junction to lead per leg	$R_{\theta JL}^{(1)}$	20					
Operating junction temperature range	T_J	-55 to +125			-55 to +150		°C
Storage temperature range	T_{STG}	-55 to +150					

Note:1.Mounted on 0.5x0.5" (13mmx13mm) pads □



Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Items	Test conditions	Symbol	KMB12F	KMB14F	KMB16F	KMB18F~ KMB110F	Unit
Instantaneous forward voltage per leg	I _F =1.0A ⁽²⁾	V _F	0.50	0.55	0.70	0.85	V
Reverse current per leg	V _R =V _{DC}	I _R	0.5				mA
			20				

Note:2.Pulse test:300μs pulse width,1% duty cycle.

Characteristic Curves (T_A=25 °C unless otherwise noted)

Fig.1 Forward Current Derating Curve

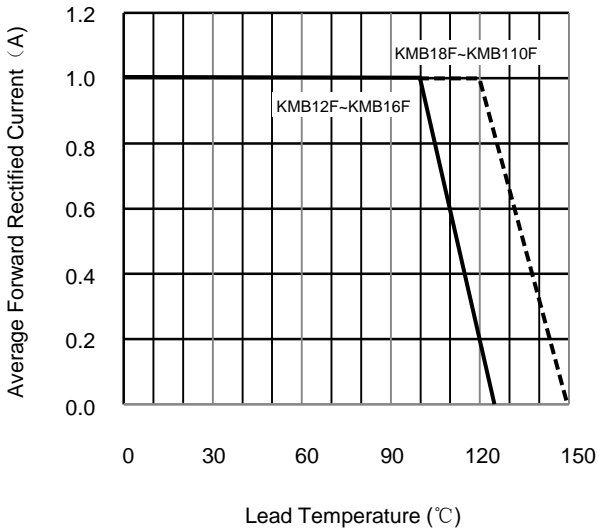


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

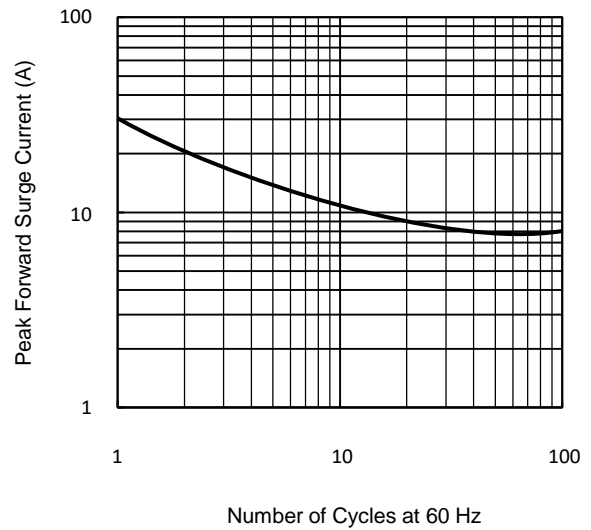


Fig.3 Typical Instantaneous Forward Characteristics

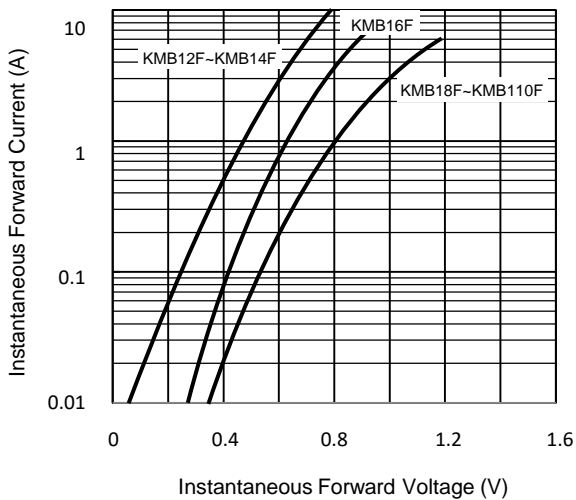
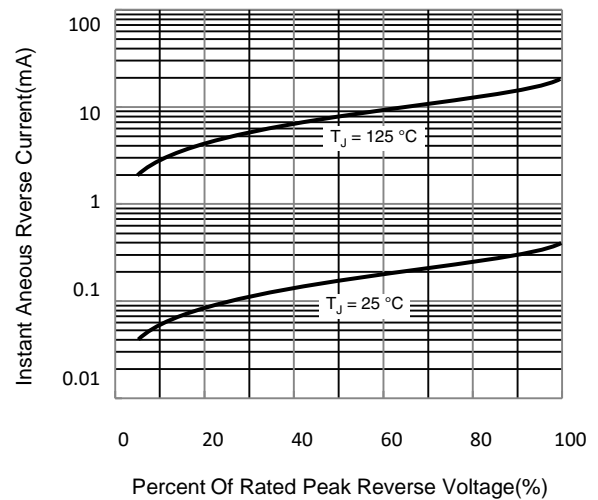


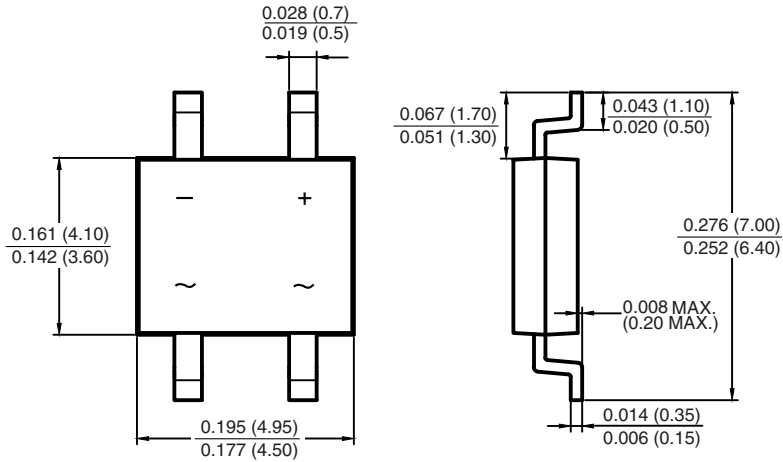
Fig.4 Typical Reverse Characteristics



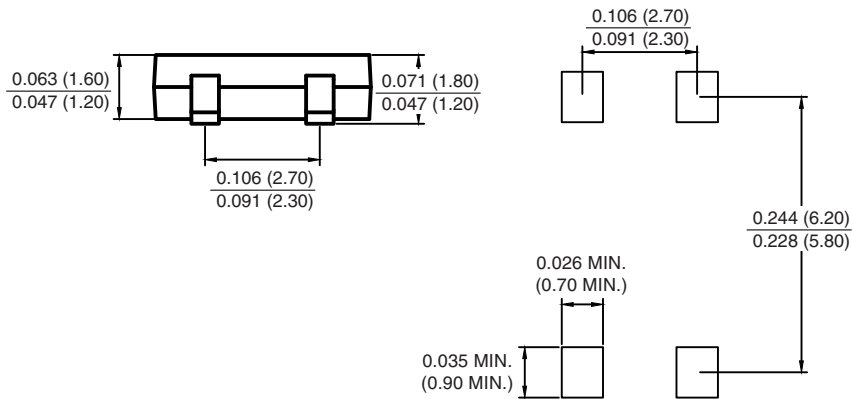


Package Outline

MBF



Mounting Pad Layout



Dimensions in inches and (millimeters)

Ordering Information

Outline	Reel (PCS)	Per Carton (PCS)	Reel Diameters (mm)
Taping	5,000	100,000	330/13"

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