

1.0A Surface Mount Schottky Barrier Single-Phase Bridge Rectifiers-20-100V

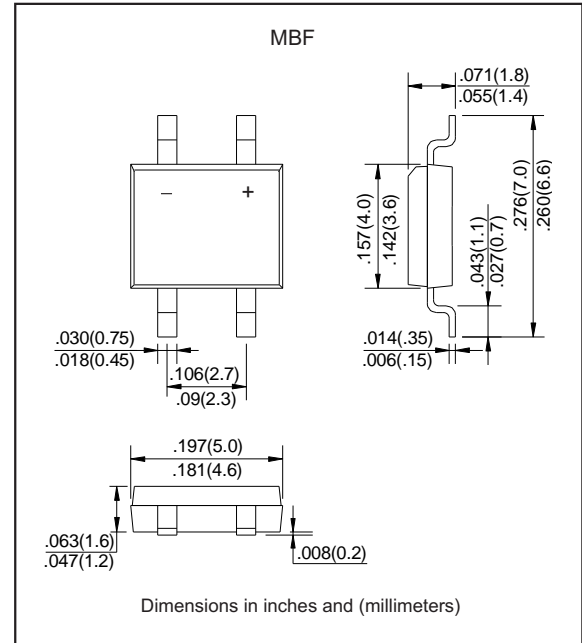
Features

- Surge overload ratings to 30 amperes peak.
- 1.0A rating in low profile surface mount mini-dip bridge save space on printed circuit board.
- Ideal for automated replacement.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Silicon eplana epitaxial chip, metal silicon junction.
- Lead-free parts meet RoHS requirements.

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, LBS/MBF
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any
- Weight : Approximated 0.082 gram

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Average Forward rectified current	See Fig.1	I_{AV}			1.0	A
Peak Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			30	A
Reverse current	$V_R = V_{RRM} \quad T_J = 25^{\circ}\text{C}$	I_R			0.1	mA
	$V_R = V_{RRM} \quad T_J = 100^{\circ}\text{C}$				10	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		75		$^{\circ}\text{C/W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		28		pF
Storage temperature		T_{STG}	-55		+150	$^{\circ}\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature $T_J, (^{\circ}\text{C})$
KMB12F	20	14	20	0.55	
KMB14F	40	28	40		
KMB16F	60	42	60	0.70	
KMB18F	80	56	80		
KMB110F	100	70	100	0.85	

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage per element at 1.0A peak

Rating and characteristic curves

FIG. 1- FORWARD CURRENT DERATING CURVE

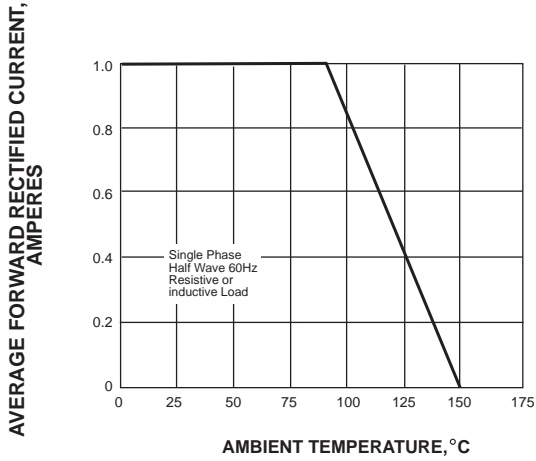


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

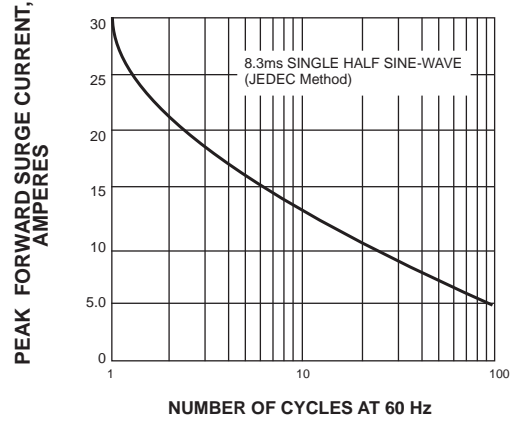


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

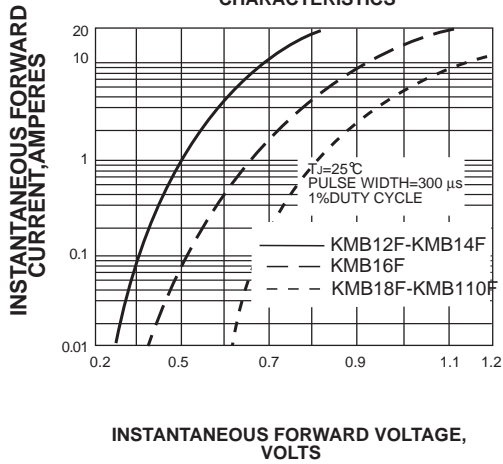


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

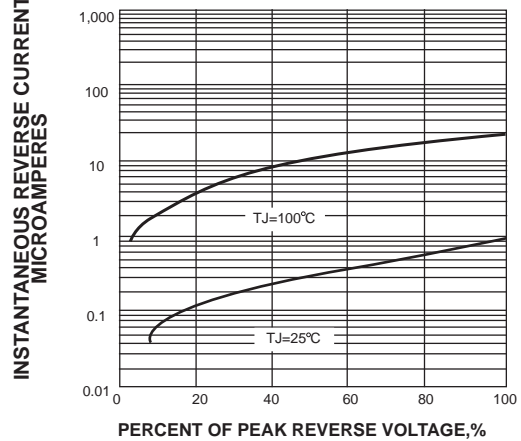
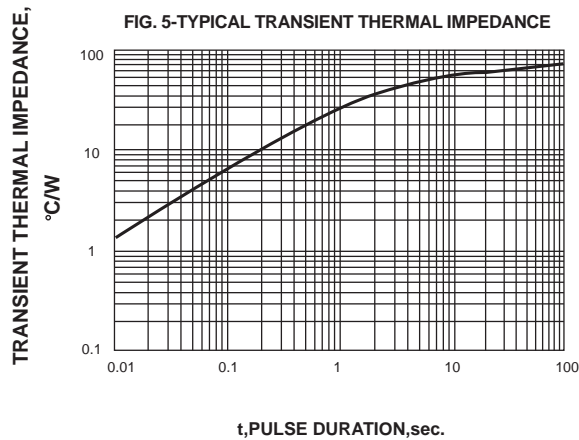
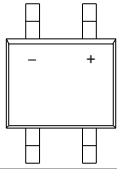
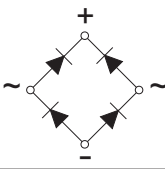


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE



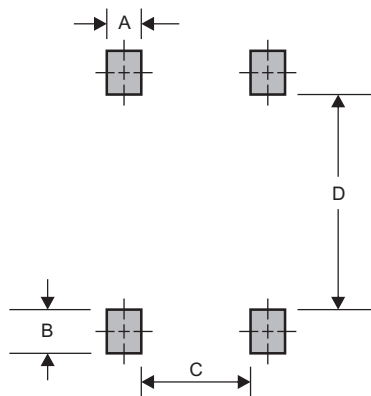
Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
KMB12F	KMB12F
KMB14F	KMB14F
KMB16F	KMB16F
KMB18F	KMB18F
KMB110F	KMB110F

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C	D
MBF	0.023 (0.58)	0.030 (0.76)	0.070 (1.78)	0.226 (5.75)