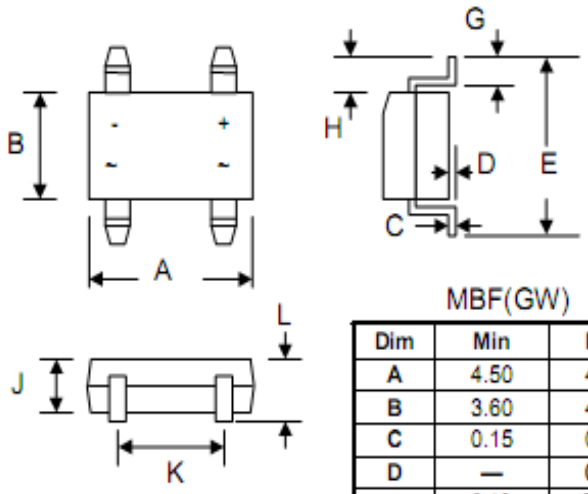
KMB12F(GW) – KMB110F(GW)

Schottky Surface Mount Flat Bridge Rectifier

Major Ratings and Characteristics

$I_{F(AV)}$	1.0 A
V_{RRM}	20 V to 100 V
I_{FSM}	30 A
V_F	0.50 V, 0.55V,0.70 V, 0.85V
T_j max.	125 °C



MBF(GW)

Dim	Min	Max
A	4.50	4.95
B	3.60	4.10
C	0.15	0.35
D	—	0.20
E	6.40	7.00
G	0.50	1.10
H	1.30	1.70
J	1.20	1.60
K	2.30	2.70
L	—	1.80
All Dimensions in mm		

Features

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:
  260℃/10 seconds at terminals
- Component in accordance to
  RoHS 2002/95/1 and WEEE 2002/96/EC

Mechanical Date

- **Case:** MBF molded plastic body over Schottky barrier chips
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Polarity symbols marked on body

Maximum Ratings & Thermal Characteristics & Electrical Characteristics

(T_A = 25 °C unless otherwise noted)

	Symbol	KMB12F	KMB14F	KMB16F	KMB18F	KMB110F	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	V
Maximum average forward rectified current 0.2×0.2"(5.0×5.0mm)copper pad area	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30					A
Maximum instantaneous forwad voltage at 1.0A	V_F	0.50	0.55	0.70	0.85		V
Maximum DC reverse current T_A = 25 ℃ at Rated DC blocking voltage T_A = 100℃	I_R	0.5 20					mA
Typical Junction Capacitance at 4.0V,1.0MHz	C_J	250			125		pF
Typical Thermal resistance (Note1)	$R_{\theta JA}$ $R_{\theta JL}$	85 20					℃/ W
Operating junction temperature range	T_J	–55 to +125					℃
Storage temperature range	T_{STG}	– 55 to +150					℃

Note: 1.Thermal resistance from junction to ambient and from junction to lead P.C.B.mounted on 0.2×0.2"(5.0×5.0mm)copper pad areas.

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

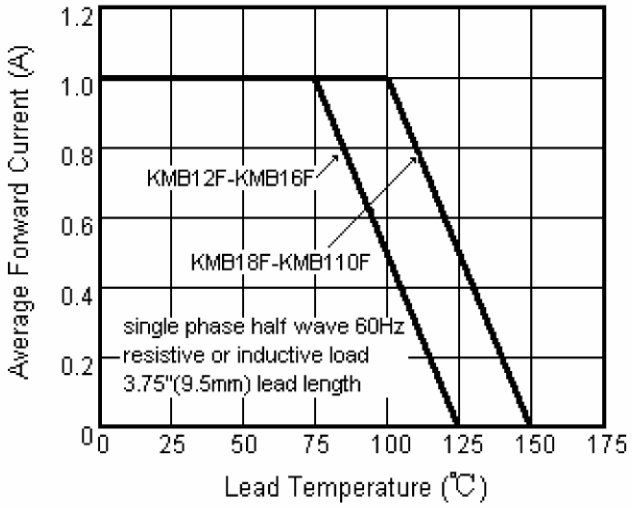


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

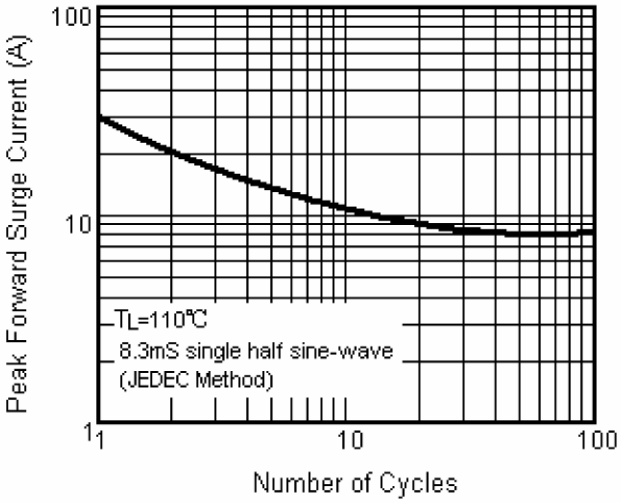


Fig.3 Typical Instantaneours Forward Characteristics

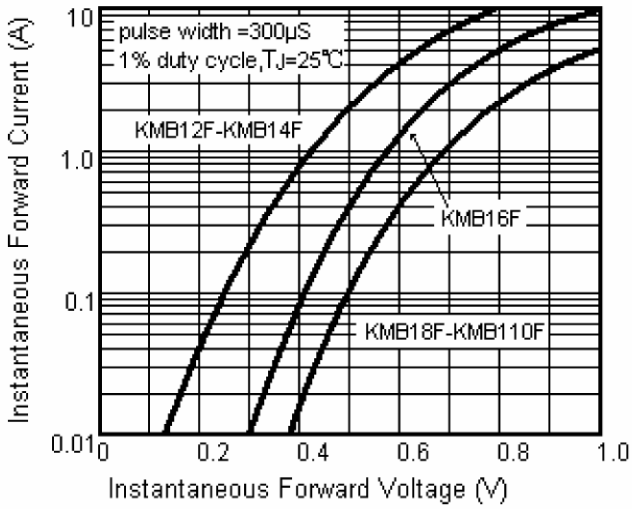


Fig.4A Typical Reverse Characteristics

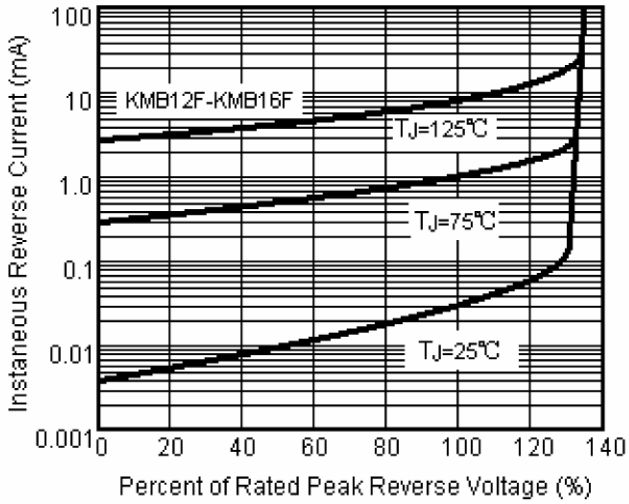


Fig.5 Typical Junction Capacitance

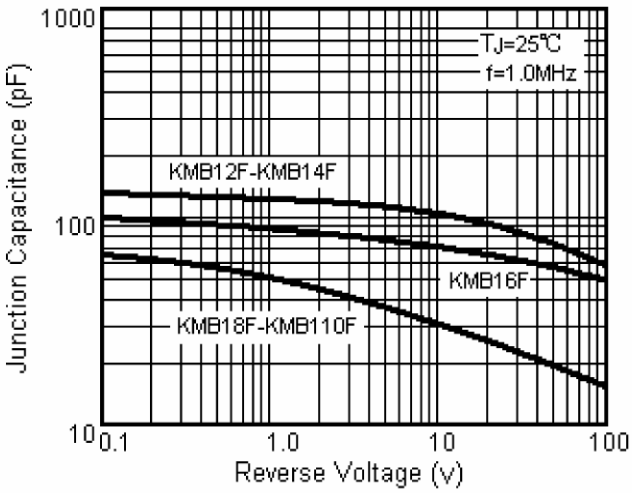


Fig.4B Typical Reverse Characteristics