



KMB12J~KMB120J

Surface Mount Schottky Bridge Rectifiers

Features

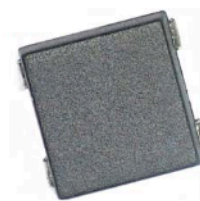
- Schottky Barrier Die Construction
- Low Forward Voltage Drop
- Low Leakage Current
- High Forward Surge Capability
- Designed for Surface Mount Application
- Plastic Material - UL Flammability 94V -0

Mechanical Date

- **Case:** SOF2-4 Molded Plastic
- **Terminals:** Solder plated, Solderable per J-STD-002B and JESD22-B102D
- **Polarity:** As Marked on body
- **Marking:** Type Number
- **Lead Free:** For ROHS/Leadfree Version

Major Ratings and Characteristics

$I_{F(AV)}$	1.0 A
V_{RRM}	20 V to 200 V
I_{FSM}	30 A
I_R	0.5,0.2 mA
V_F	0.55,0.70,0.85 ,0.95V
T_j max.	125 °C



SOF2-4J

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

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Items	Symbol	KMB 12J	KMB 14J	KMB 16J	KMB 18J	KMB 100J	KMB 150J	KMB 120J	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	150	200	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0 ¹⁾							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +125							°C

1): Mounted on glass epoxy P.C. Board with 1.3×1.3mm² solder pad.

Electrical Characteristics ($T_A = 25\text{ °C}$ unless otherwise noted)

Items	Test conditions	Symbol	KMB 12J	KMB 14J	KMB 16J	KMB 18J	KMB 100J	KMB 150J	KMB 120J	UNIT
Instantaneous forward voltage	$I_F = 1.0A^{2)}$	V_F	0.55		0.70	0.85		0.95		V
Reverse current	$T_A = 25\text{ °C}$	I_R	0.5			0.2				mA
	$T_A = 100\text{ °C}$		10			2				
Typical junction capacitance	4.0V, 1MHz	C_J	28							

2): Pulse test: 300μS pulse width, 1% duty cycle.



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG. 1- FORWARD CURRENT DERATING CURVE

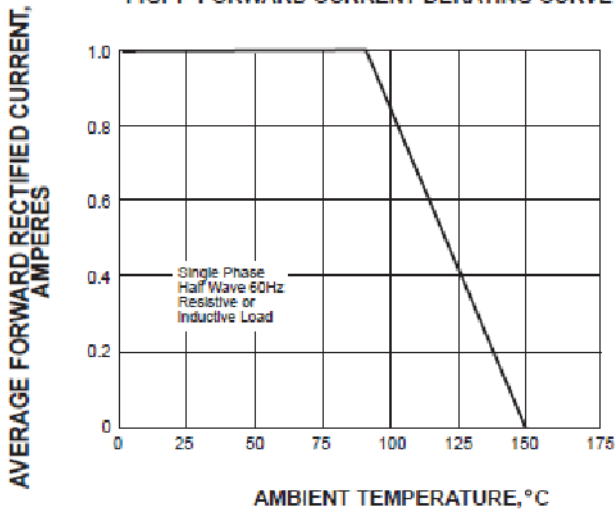


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

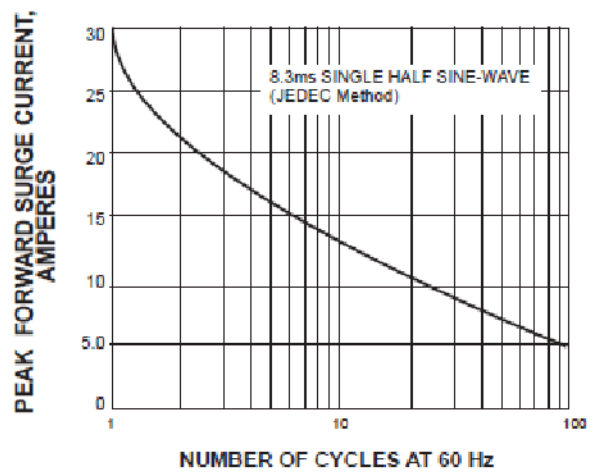


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

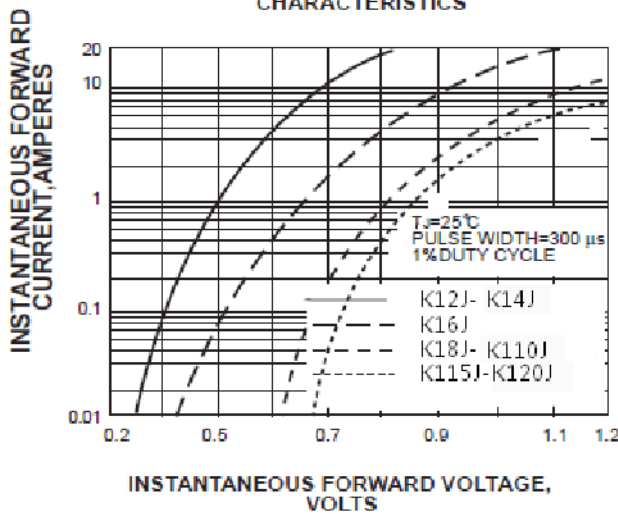
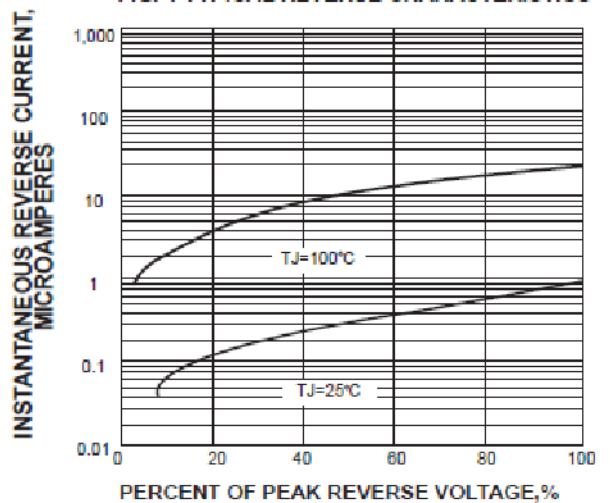


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

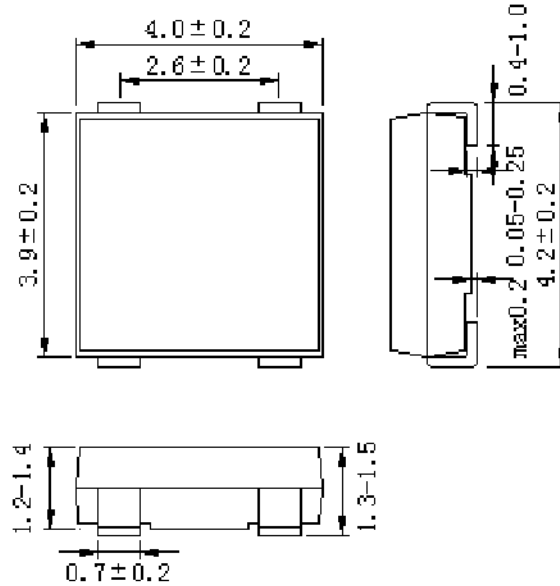




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Package Outline




Marking Code

SOF2-4J



Type	Code
KMB12J	K12J
KMB14J	K14J
KMB16J	K16J
KMB18J	K18J
KMB110J	K110J
KMB115J	K115J
KMB120J	K120J

-  =Trademark;
- KXXJ =Marking Code, Product Specification, See the table;
K=Schottky bridge rectifier; XX =Product Specification.

Soldering Pad

