

RoHS Compliant Product

**FEATURES**

- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 50A Peak
- Plastic Case Material has UL Flammability Classification Rating 94V-0

**MECHANICAL DATA**

- Case: MBS, molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: As marked on case
- Mounting Position: Any
- Marking: Type number

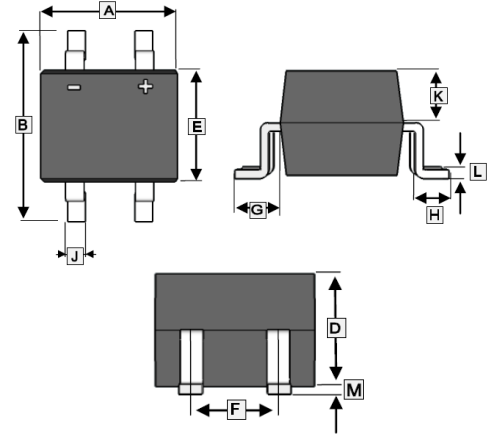
**PACKAGE INFORMATION**

| Package | MPQ | Leader Size |
|---------|-----|-------------|
| MBS     | 3K  | 13 inch     |

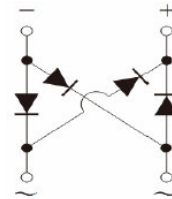
**ORDER INFORMATION**

| Part Number      | Type                            |
|------------------|---------------------------------|
| KMB22S~KMB210S   | Lead (Pb)-free                  |
| KMB22SH~KMB210SH | Lead (Pb)-free and Halogen-free |

**MBS**



| REF. | Millimeter |      | REF. | Millimeter |      |
|------|------------|------|------|------------|------|
|      | Min.       | Max. |      | Min.       | Max. |
| A    | 4.50       | 4.95 | H    | 0.60       | 1.10 |
| B    | -          | 7.00 | J    | 0.50       | 0.84 |
| D    | 2.30       | 2.70 | K    | 0.90       | 1.53 |
| E    | 3.60       | 4.20 | L    | 0.15       | 0.35 |
| F    | 2.20       | 2.70 | M    | 0.20 REF.  |      |
| G    | 1.10       | 2.12 |      |            |      |



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, de-rate current by 20%.)

| Parameter  | Symbol            | Part Number |        |        |         | Unit             |
|--|-------------------|-------------|--------|--------|---------|------------------|
|  |                   | KMB22S      | KMB24S | KMB26S | KMB210S |                  |
| Peak Repetitive Reverse Voltage  | $V_{RRM}$         | 20          | 40     | 60     | 100     | V                |
| RMS Reverse Voltage  | $V_{RMS}$         | 14          | 28     | 42     | 70      |                  |
| DC Blocking Voltage  | $V_{DC}$          | 20          | 40     | 60     | 100     |                  |
| Average Rectified Output Current <sup>1</sup>  | $I_F$             | 2           |        |        |         | A                |
| Non-Repetitive Peak Forward Surge Current<br>@8.3ms Single half sine-wave superimposed on rated load(JEDEC Method) | $I_{FSM}$         | 50          |        |        |         | A                |
| $I^2t$ Rating for Fusing ( $t < 8.3ms$ )   | $I^2t$            | 10.375      |        |        |         | A <sup>2</sup> s |
| Forward Voltage per element @ $I_F=2A$   | $V_F$             | 0.55        |        | 0.7    | 0.85    | V                |
| Peak Reverse Current<br>@Rated DC Blocking Voltage   | $I_R$             | 0.1         |        |        | 0.05    | mA               |
|  | $T_A=100^\circ C$ | 10          |        |        | 5       |                  |
| Typical Junction Capacitance per leg   | $C_J$             | 28          |        |        |         | pF               |
| Typical Thermal Resistance per leg <sup>2</sup>  | $R_{\theta JL}$   | 16          |        |        |         | °C/W             |
| Operating and Storage temperature range  | $T_J, T_{STG}$    | -55~150     |        |        |         | °C               |

Notes:

1. Mounted on aluminum substrate PC board with 1.3mm<sup>2</sup> solder pad.
2. Thermal resistance from Junction to lead.

**RATINGS AND CHARACTERISTIC CURVES**

FIG. 1- FORWARD CURRENT DERATING CURVE

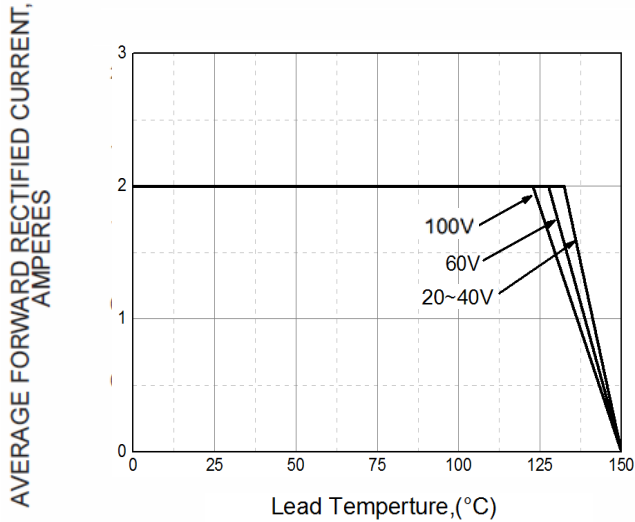


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

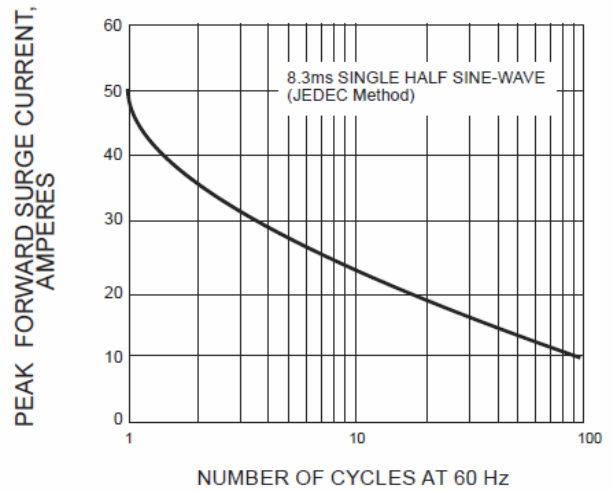


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

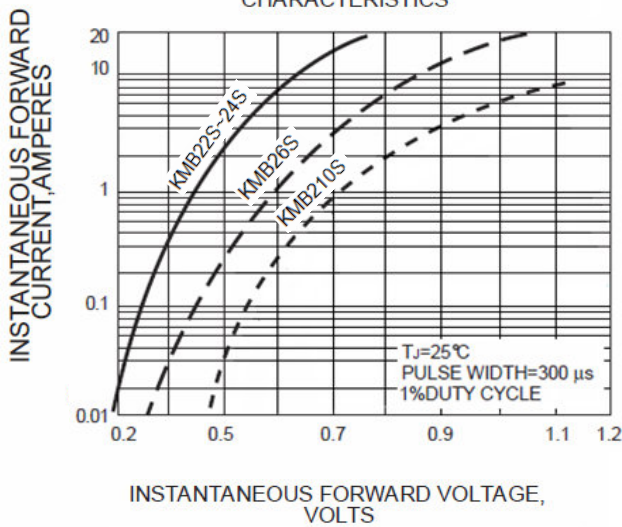


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

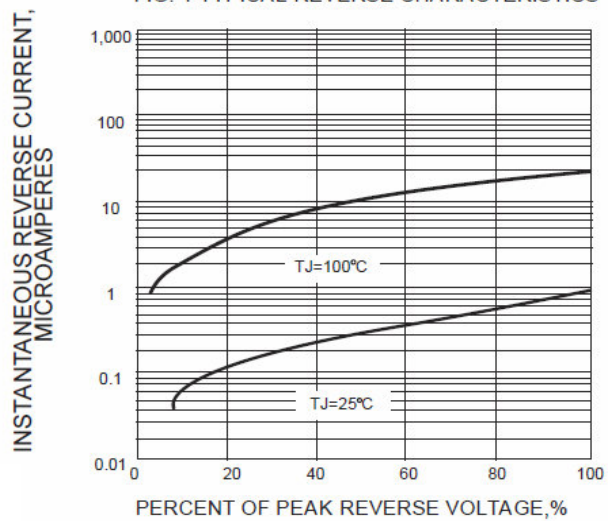


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE

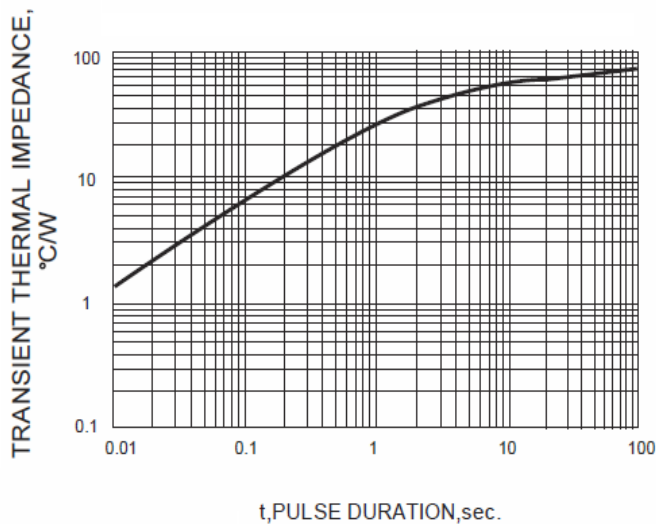


FIG. 6 MOUNTING PAD LAYOUT

