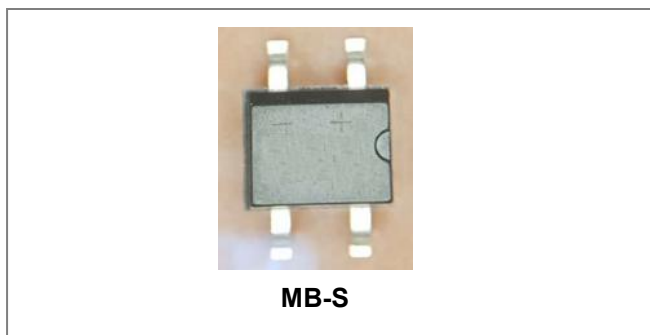


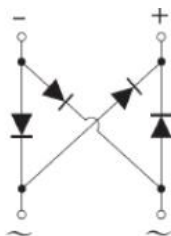
KMB22S THRU KMB225S SINGLE PHASE 2.0 AMP SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER



Features

- Schottky Brrier Chip
- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 50A Peak
- Plastic Case Material has UL Flammability Classification 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: MB-S, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

Maximum Ratings:

| Type Number | Symbol | KMB 22S | KMB 23S | KMB 24S | KMB 245S | KMB 25S | KMB 26S | KMB 28S | KMB 210S | KMB 215S | KMB 220S | KMB 225S | Unit |
|---|-----------------------|---------|---------|---------|----------|---------|---------|---------|----------|----------|----------|----------|------------------|
| Peak Repetitive Reverse Voltage DC Blocking Voltage | V_{RRM} V_{DC} | 20 | 30 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | 250 | V |
| RMS Voltage | V_{RMS} | 14 | 21 | 28 | 31 | 35 | 42 | 56 | 70 | 105 | 140 | 175 | V |
| Average Rectified Output Current (Note1)@ $T_C=100^{\circ}C$ | I_o | 2.0 | | | | | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 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 ² s |

Note: KMB225S not recommend to new design.

Electrical Characteristics:

| Type Number | Symbol | KMB 22S | KMB 23S | KMB 24S | KMB 245S | KMB 25S | KMB 26S | KMB 28S | KMB 210S | KMB 215S | KMB 220S | KMB 225S | Unit | |
|--|----------|---------|---------|---------|----------|---------|---------|---------|----------|----------|----------|----------|------|----|
| Forward Voltage (per element) @ $I_F = 2A$, $T_A = 25^\circ C$ | V_F | 0.55 | | | 0.70 | | 0.85 | | 0.90 | | 0.92 | | V | |
| Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 100^\circ C$ | I_{RM} | 0.1 | | | | | | 0.05 | | | | | | mA |
| | | 10 | | | | | | 5 | | | | | | |
| Typical Junction Capacitance (per leg) (Note 2) | C_J | 28 | | | | | | | | | | | pF | |

* Pulse width < 300 μs , duty cycle < 2%

Thermal-Mechanical Specifications:

| Type Number | Symbol | KMB 22S | KMB 23S | KMB 24S | KMB 245S | KMB 25S | KMB 26S | KMB 28S | KMB 210S | KMB 215S | KMB 220S | KMB 225S | Unit |
|--|-----------------|-------------|---------|---------|----------|---------|---------|---------|----------|----------|----------|----------|--------------|
| Typical Thermal Resistance (per leg) (Note 3) | $R_{\theta JL}$ | 16 | | | | | | | | | | | $^\circ C/W$ |
| Operating junction temperature range | T_J | -55 to +150 | | | | | | | | | | | $^\circ C$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | | | | | $^\circ C$ |

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Thermal REsistance From Junction to Lead.

Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

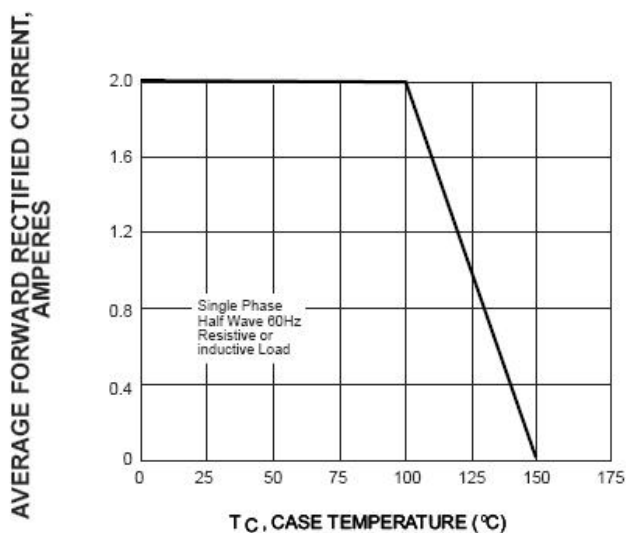
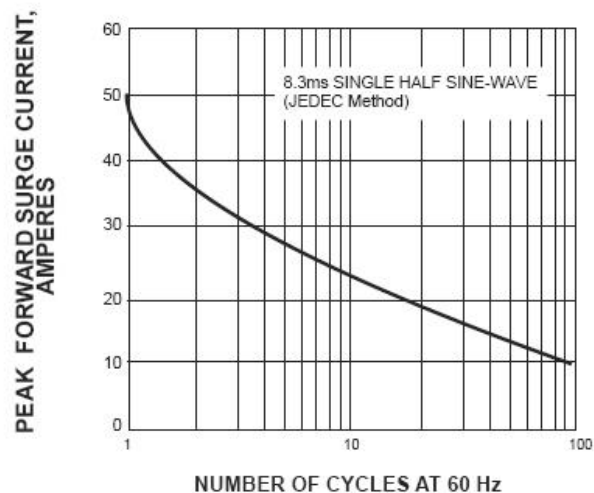
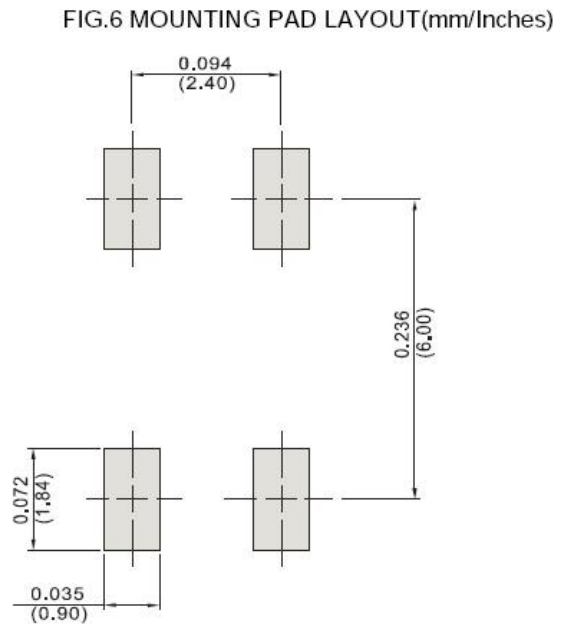
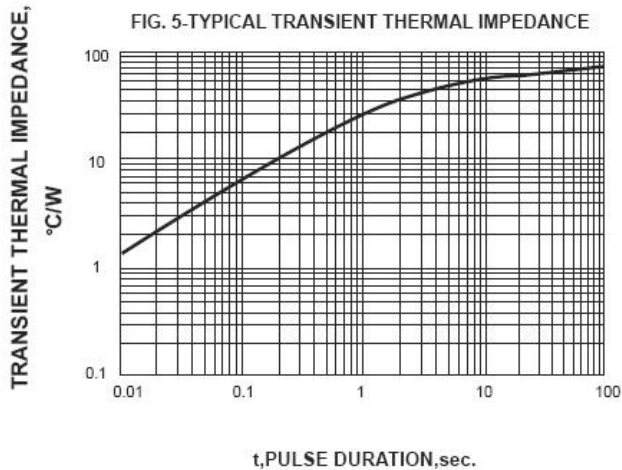
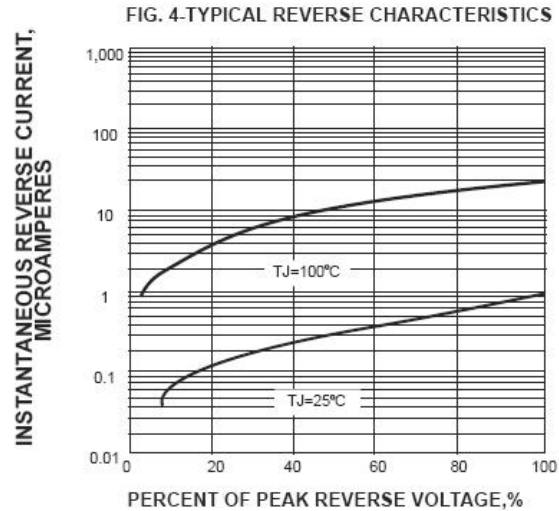
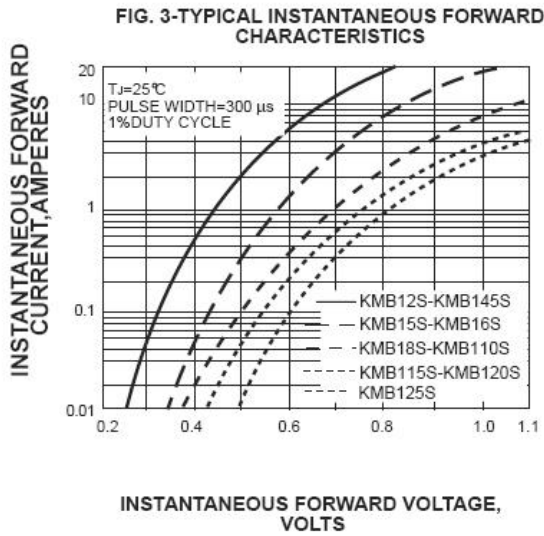


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



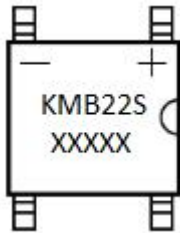
- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •



Ordering Information **Marking Diagram**

| Device | Package | Plating | Shipping |
|---------------------------|-------------------|---------|----------------|
| KMB22S THRU KMB225S | MB-S (Pb-Free) | Pure Sn | 3000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

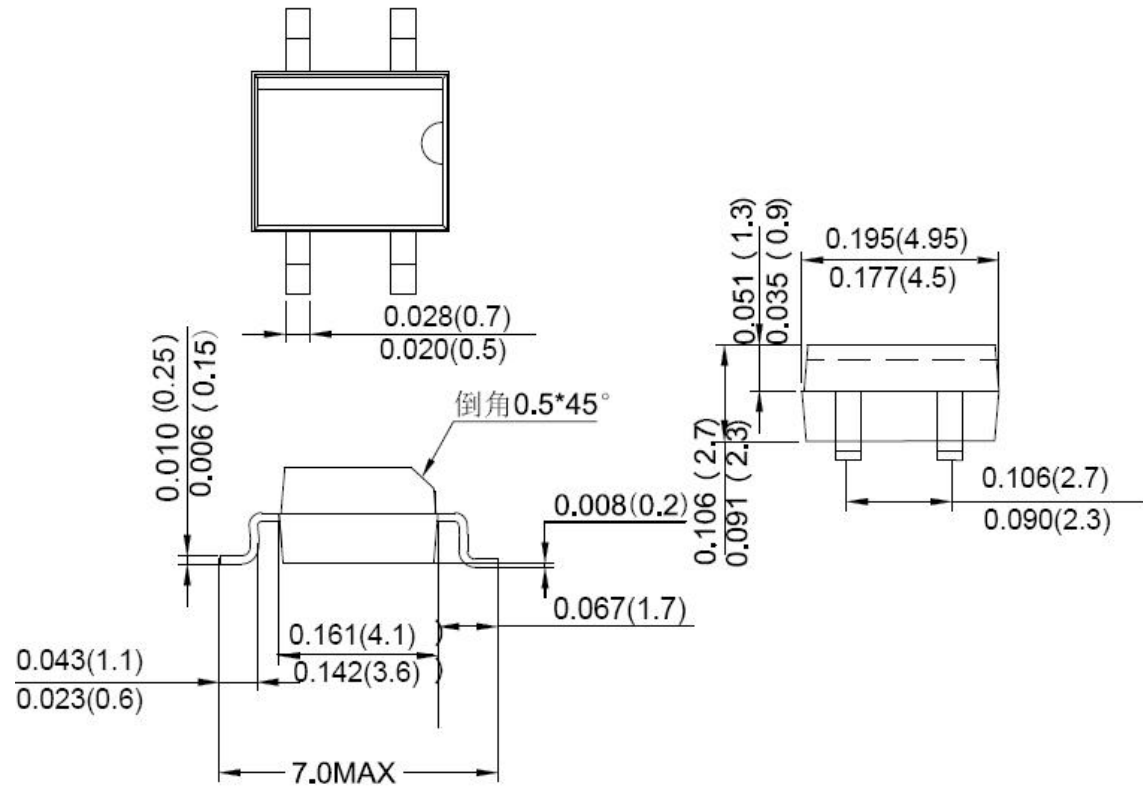


Where XXXXX is YYWWL

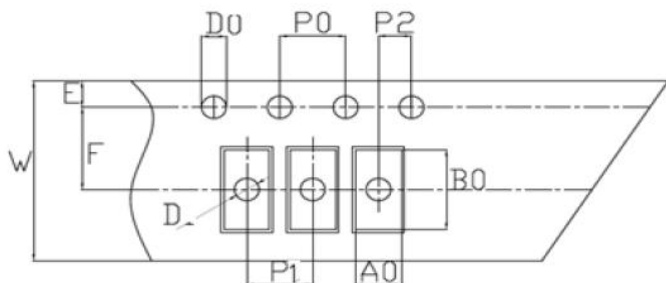
KMB22S = Type Number
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Mechanical Dimensions MB-S(Inches/Millimeters)



Carrier Tape Specification MB-S



| SYMBOL | Millimeters | |
|--------|-------------|-------|
| | Min. | Max. |
| A0 | 4.92 | 5.12 |
| B0 | 7.12 | 7.32 |
| D0 | 1.50 | 1.60 |
| D1 | 1.40 | 1.60 |
| P0 | 3.90 | 4.10 |
| P1 | 7.90 | 8.10 |
| P2 | 1.95 | 2.05 |
| E | 1.65 | 1.85 |
| K0 | 2.78 | 2.98 |
| F | 5.45 | 5.55 |
| W | 11.90 | 12.10 |
| T | 0.24 | 0.30 |
| 10P0 | 39.80 | 40.20 |
| 抗拉拉力 | ≥3KG | |

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