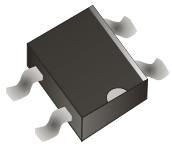
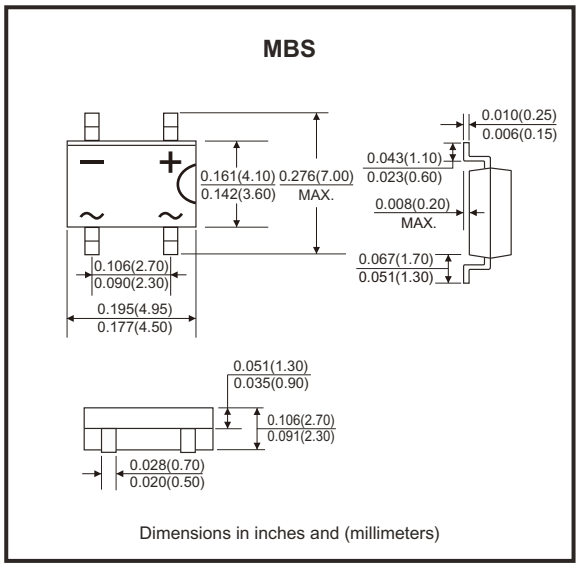
# KMB32S-G Thru. KMB310S-G

## Reverse Voltage: 20 to 100 Volts
## Forward Current: 3.0 Amp
## RoHS Device



## Features

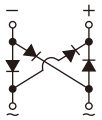
- Schottky brrier chip.
- Low power loss, high efficiency.
- Ideally suited for automatic assembly.
- Surge overload rating to 80A peak.
- Plastic case material has UL flammability classification rating 94V-0.




## 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.

## Circuit Diagram



## Maximum Ratings and Electrical Characteristics (at $T_A$=25°C, unless otherwise specified)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Parameter | | Symbol | KMB-G | | | | | | | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 32S | 33S | 34S | 345S | 35S | 36S | 38S | 310S | |
| Peak repetitive reverse voltage | | $V_{RRM}$ | 20 | 30 | 40 | 45 | 50 | 60 | 80 | 100 | V |
| DC blocking voltage | | $V_{DC}$ | 20 | 30 | 40 | 45 | 50 | 60 | 80 | 100 | V |
| RMS reverse voltage | | $V_{R(RMS)}$ | 14 | 21 | 28 | 31 | 35 | 42 | 56 | 70 | V |
| Average rectified output current (Note 1) @$T_C$=100°C | | $I_F(AV)$ | 3 | | | | | | | | A |
| Non-Repetitive peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | | $I_{FSM}$ | 80 | | | | | | | | A |
| $I^2t$ rating for fusing (t< 8.3ms) | | $I^2t$ | 26.560 | | | | | | | | $A^2s$ |
| Forward voltage per element | $I_F$=3.0A | $V_{FM}$ | 0.55 | | | | 0.7 | | 0.85 | | V |
| Peak reverse current at rated DC blocking voltage | $T_A$=25°C | $I_{RM}$ | 0.1 | | | | | | 0.05 | | mA |
| | $T_A$=100°C | | 10 | | | | | | 5 | | |
| Typical junction capacitance per leg | | $C_j$ | 28 | | | | | | | | pF |
| Typical thermal resistance per leg (Note 2) | | $R_{\theta JL}$ | 16 | | | | | | | | °C/W |
| Operating junction temperature range | | $T_J$ | -55 to +150 | | | | | | | | °C |
| Storage temperature range | | $T_{STG}$ | -55 to +150 | | | | | | | | °C |

Notes: 1. Mounted on aluminum substrate PC board with 1.3mm² solder pad.
2. Thermal resistance from junction to lead.

Company reserves the right to improve product design , functions and reliability without notice.

REV:A

## Rating and Characteristics Curves (KMB32S-G Thru. KMB310S-G)

Fig.1 - Forward Current Derating Curve

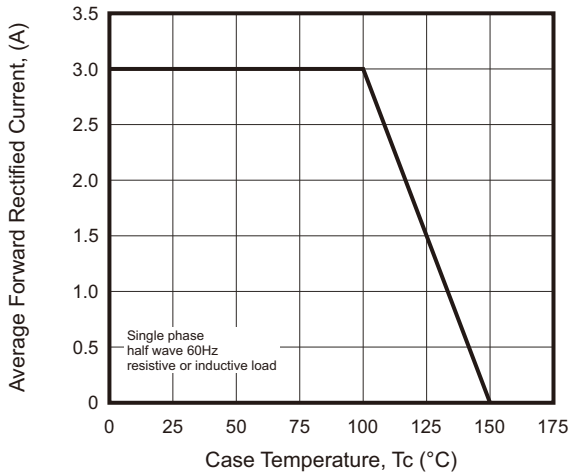



Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

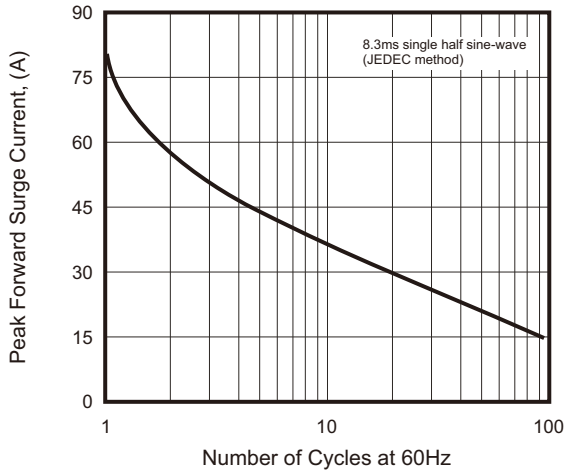



Fig.3 - Typical Instantaneous Forward Characteristics

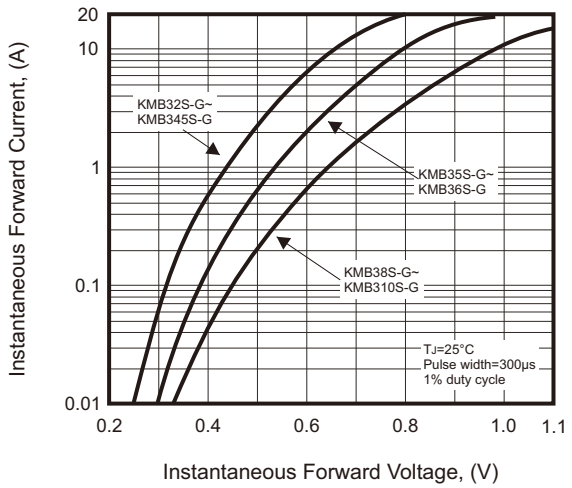
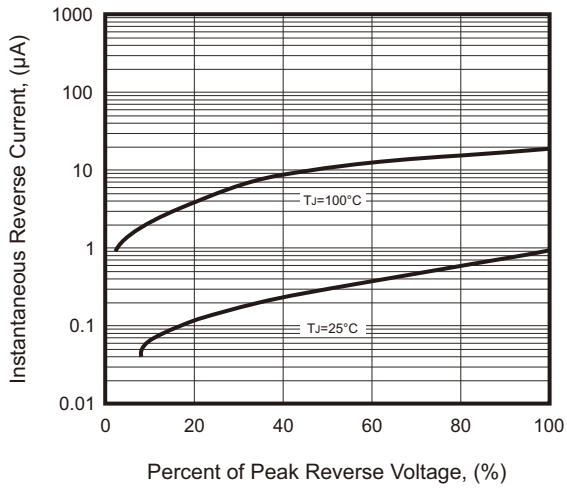
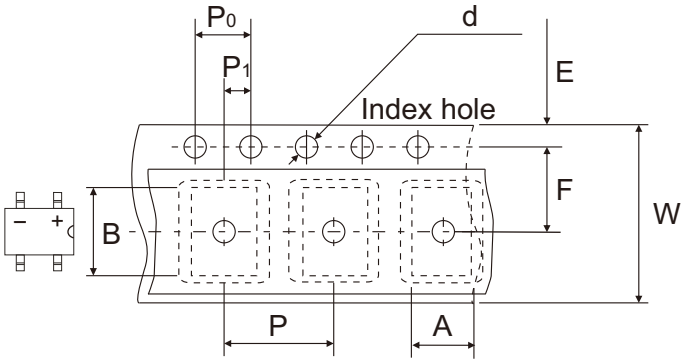
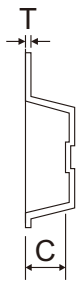


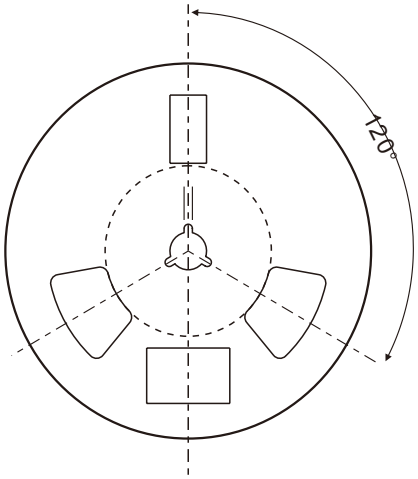

Fig.4 - Typical Reverse Characteristics

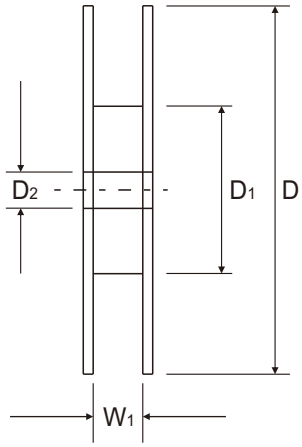


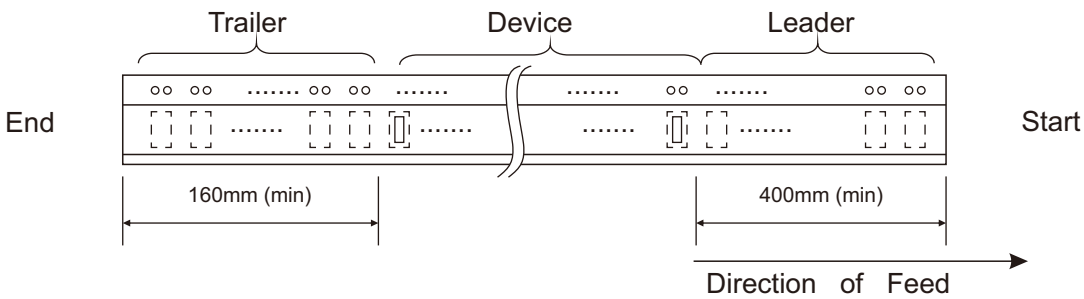
# Reel Taping Specification



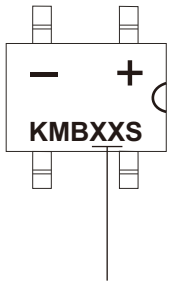




| | SYMBOL | A | B | C | d | D | D1 | D2 |
|---|---|---|---|---|---|---|---|---|
| MBS | (mm) | 5.02 ± 0.10 | 7.22 ± 0.10 | 2.88 ± 0.10 | 1.55 ± 0.05 | 330.00 ± 1.00 | 75.00 ± 1.00 | 13.50 + 1.00 - 0.50 |
| | (inch) | 0.198 ± 0.004 | 0.284 ± 0.004 | 0.113 ± 0.004 | 0.061 ± 0.002 | 12.992 ± 0.039 | 2.953 ± 0.039 | 0.531 + 0.039 - 0.020 |

| | SYMBOL | E | F | P | P0 | P1 | T | W | W1 |
|---|---|---|---|---|---|---|---|---|---|
| MBS | (mm) | 1.75 ± 0.10 | 5.50 ± 0.05 | 8.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 0.27 ± 0.03 | 12.00 ± 0.10 | 13.50 ± 1.00 |
| | (inch) | 0.069 ± 0.004 | 0.217 ± 0.002 | 0.315 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.011 ± 0.001 | 0.472 ± 0.004 | 0.531 ± 0.039 |

## Marking Code

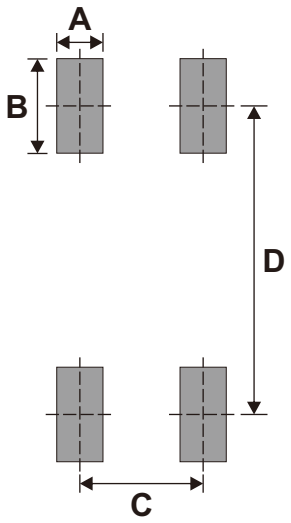
| Part Number | Marking Code |
|---|---|
| KMB32S-G | KMB32S |
| KMB33S-G | KMB33S |
| KMB34S-G | KMB34S |
| KMB345S-G | KMB345S |
| KMB35S-G | KMB35S |
| KMB36S-G | KMB36S |
| KMB38S-G | KMB38S |
| KMB310S-G | KMB310S |




**XX/XXX = Product type marking code**

## Suggested PAD Layout

| SIZE | MBS | |
|---|---|---|
| | (mm) | (inch) |
| A | 0.90 | 0.035 |
| B | 1.84 | 0.072 |
| C | 2.40 | 0.094 |
| D | 6.00 | 0.236 |




## Standard Packaging

| Case Type | REEL PACK | |
|---|---|---|
| | REEL ( pcs ) | Reel Size (inch) |
| MBS | 3,000 | 13 |