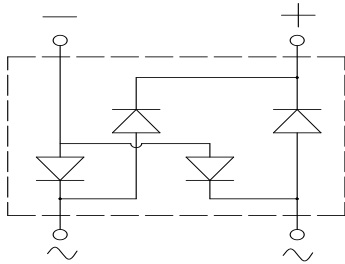
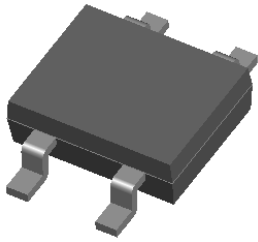


Bridge Rectifiers



Features

- UL recognition, file #E313149
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

General purpose use in AC/DC bridge full wave rectification for power supply, lighting ballast, battery charger, home appliances, office equipment, and telecommunication applications.

Mechanical Data

- **Package:** MBL5
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | MBL1S | MBL2S | MBL4S | MBL6S | MBL8S | MBL10S |
|--|--------------------------|------------------|-----------|-------|-------|-------|-------|--------|
| Device marking code | | | MBL1S | MBL2S | MBL4S | MBL6S | MBL8S | MBL10S |
| Repetitive peak reverse voltage | VRRM | V | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load, T _a =40°C | On alumina substrate | I _o | A | 0.8 | | | | |
| | On glass-epoxy substrate | | | 0.5 | | | | |
| Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, T _j =25°C | IFSM | A | 30 | | | | | |
| Current squared time @1ms≤t≤8.3ms T _j =25°C, rating of per diode | I ² t | A ² s | 3.7 | | | | | |
| Storage temperature | T _{stg} | °C | -55 ~+150 | | | | | |
| Junction temperature | T _j | °C | -55 ~+150 | | | | | |

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | MBL1S | MBL2S | MBL4S | MBL6S | MBL8S | MBL10S |
|---|------------------|------|-----------------------------------|-------|-------|-------|-------|-------|--------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | IFM=0.4A | 1.00 | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM} | μA | V _{RM} =V _{RRM} | 5 | | | | | |



MBL1S THRU MBL10S

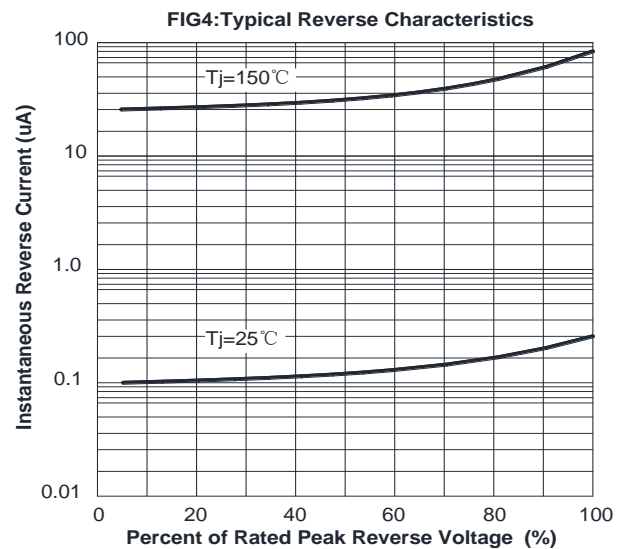
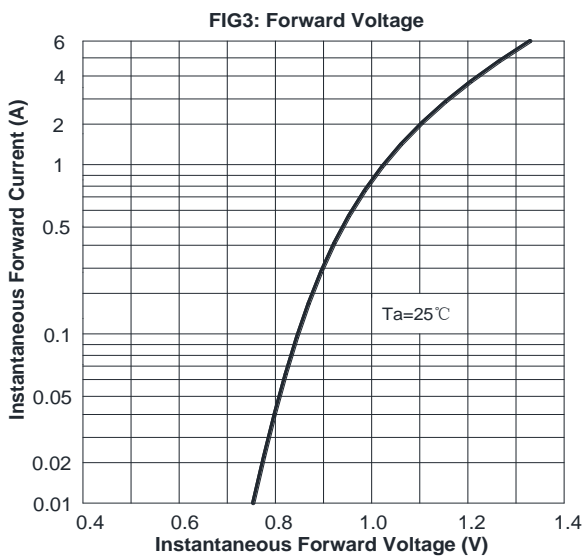
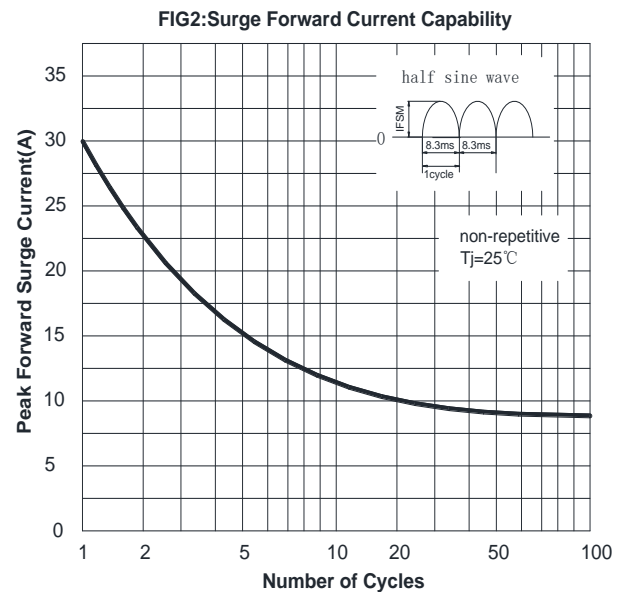
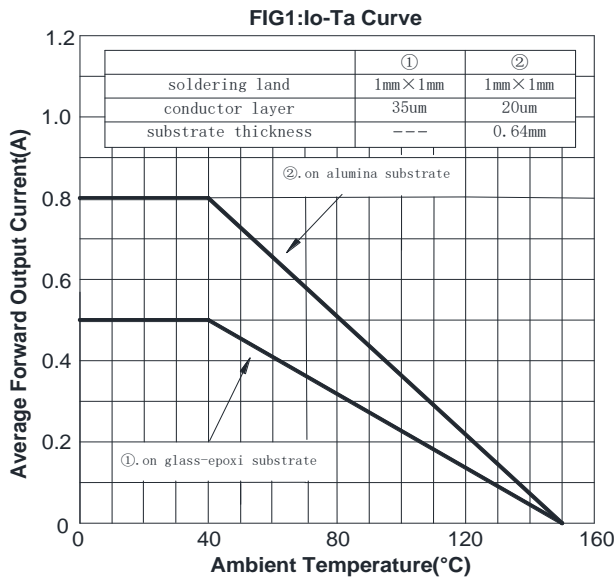
■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | MBL1S | MBL2S | MBL4S | MBL6S | MBL8S | MBL10S |
|--------------------|--|----------------|------|-------|-------|-------|-------|-------|--------|
| Thermal Resistance | Between junction and ambient, On alumina substrate | R θ J-A | °C/W | 76.0 | | | | | |
| | Between junction and ambient, On glass-epoxi substrate | R θ J-A | | 134.0 | | | | | |
| | Between junction and lead | R θ J-L | | 20.0 | | | | | |

■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|-----------------------|-------------------------|----------------------------|---------------|
| MBL1S-MBL10S | F1 | Approximate 0.083 | 4000 | 8000 | 64000 | 13' reel |

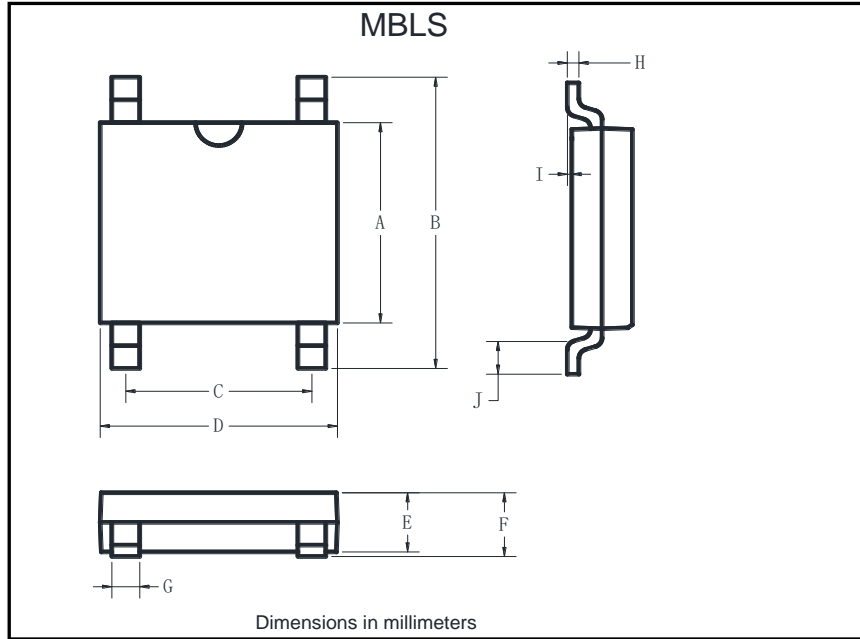
■ Characteristics (Typical)





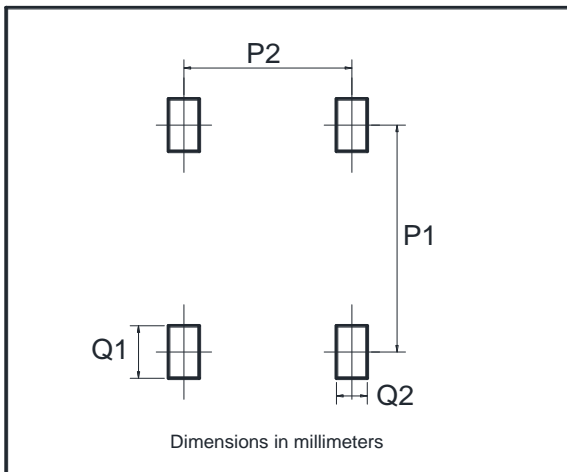
MBL1S THRU MBL10S

■ Outline Dimensions



| MBLS | | |
|------|---------|------|
| Dim | Min | Max |
| A | 3.60 | 4.00 |
| B | 6.40 | 7.00 |
| C | 2.20 | 2.60 |
| D | 4.50 | 4.90 |
| E | 1.30 | 1.50 |
| F | 1.40 | 1.60 |
| G | 0.56 | 0.84 |
| H | 0.15 | 0.35 |
| I | 0.20Max | |
| J | 0.70 | 1.10 |

■ Suggested pad layout



| Dim | Min |
|-----|------|
| P1 | 6.00 |
| P2 | 2.40 |
| Q1 | 1.84 |
| Q2 | 1.20 |



MBL1S THRU MBL10S

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