



Bridge Rectifiers
Reverse Voltage-1000v
Forward current-3A

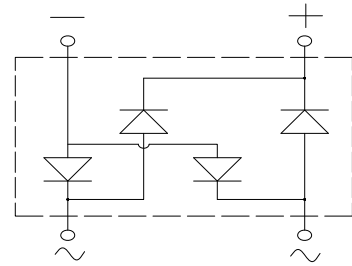
Features

- Glass passivated chip
- High surge current capability
- Ideal for surface mounted applications
- Low power loss, high efficiency
- Plastic Case Material has UL Flammability



Mechanical Data

- Package: MSB
- Terminals: Tin Plated leads, solderable per Mil-STD-750 Method 2026
- Polarity: As marked
- Molding compound meets UL 94 V-0 flammability rating, ROHS-compliant



Maximum Ratings (Ta=25°C Unless otherwise specified)

| Type Number | SYMBOL | MSB310 | Unit |
|---|------------------|-----------|------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 1000 | V |
| Maximum Average Forward Rectified Current at TL = 100 °C | $I_{O(AV)}$ | 3.0 | A |
| Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated | IFSM | 80.0 | A |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C | | 160.0 | A |
| Current squared time @1ms≤t.3≤ms Tj=25°C, Rating of per diode | I^2t | 26.6 | A ² S |
| Maximum Forward Voltage at 3.0A DC | V_{FM} | 1.1 | V |
| Maximum Reverse Current TA = 25°C | IR | 5 | uA |
| at Rated DC Blocking Voltage TA = 100°C | | 100 | |
| Typical Junction Capacitance | CJ | 40 | pF |
| Typical Thermal Resistance | R_{QJa} | 75.0 | °C/W |
| Operating Junction Temperature Range | T _J | -55to+150 | °C |
| Storage Temperature Range | T _{STG} | -55to+150 | °C |



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

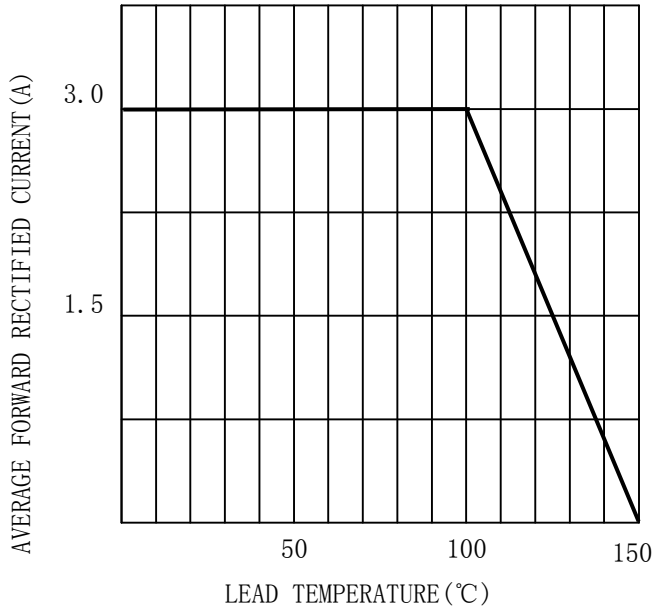


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

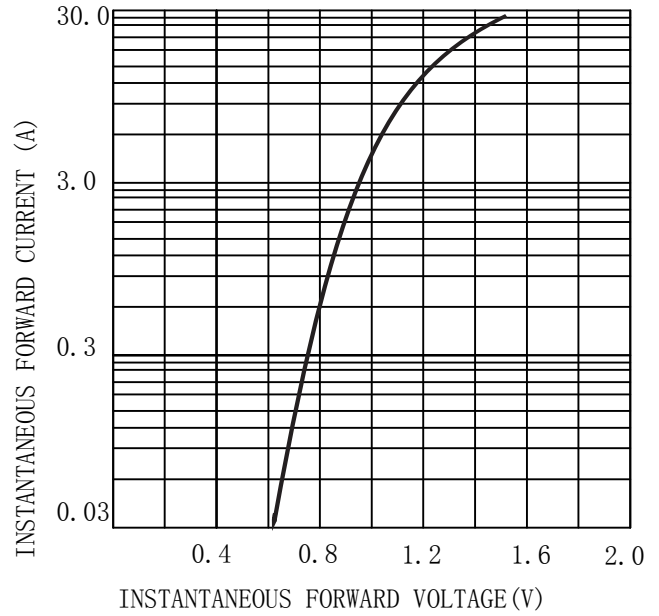


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

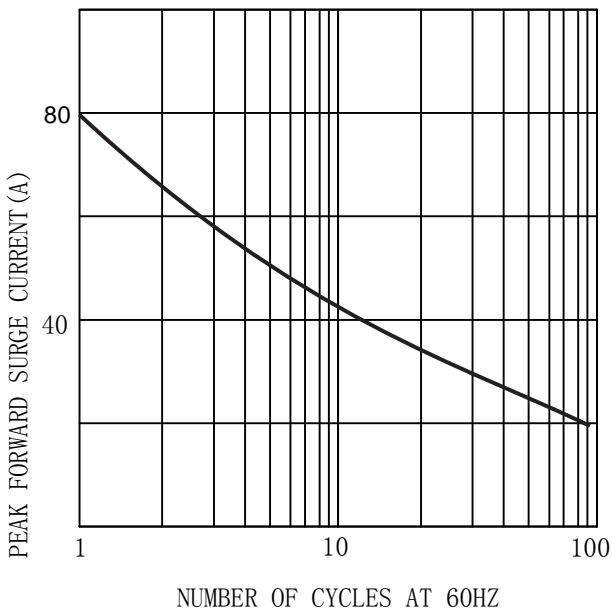
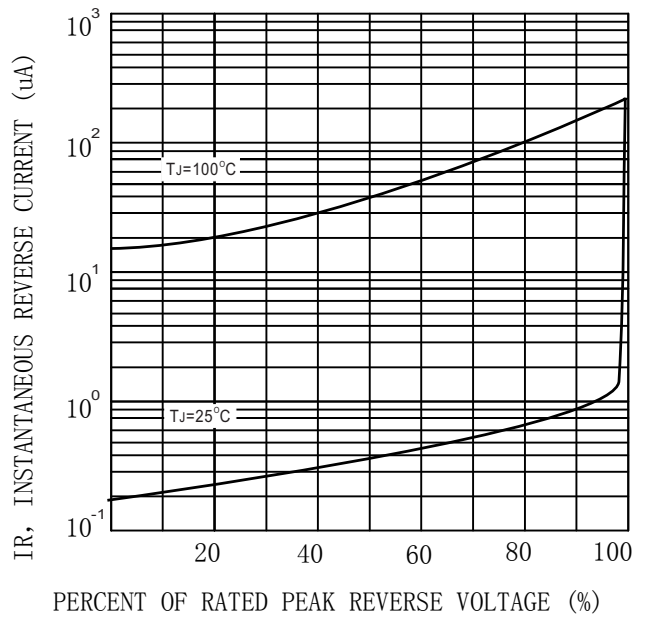



FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





MARKING INFORMATION



 = Logo

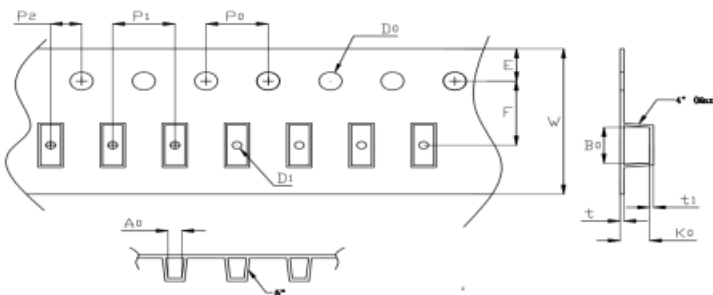
**** = Date Code Marking

MSB310 = Marking Code

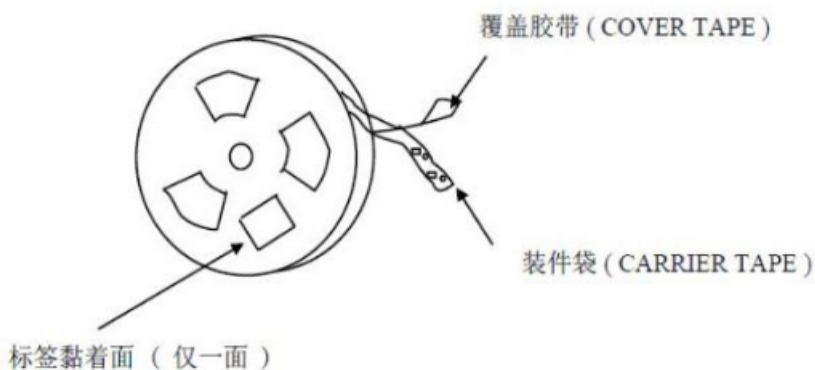
Print according to customer request

PACKING REQUIRMENTS

- Carrier tape packing



| Specifications | Carrier tape type | Ao | B0 | Ko | Po | W | t1 | Explain |
|----------------|-------------------|----------|----------|-----------|-----------|-----------|-----------|---------|
| MSB | Anti-static | 7.0±0.10 | 8.7±0.10 | 1.65±0.10 | 4.00±0.10 | 16.0±0.30 | 0.28±0.05 | |

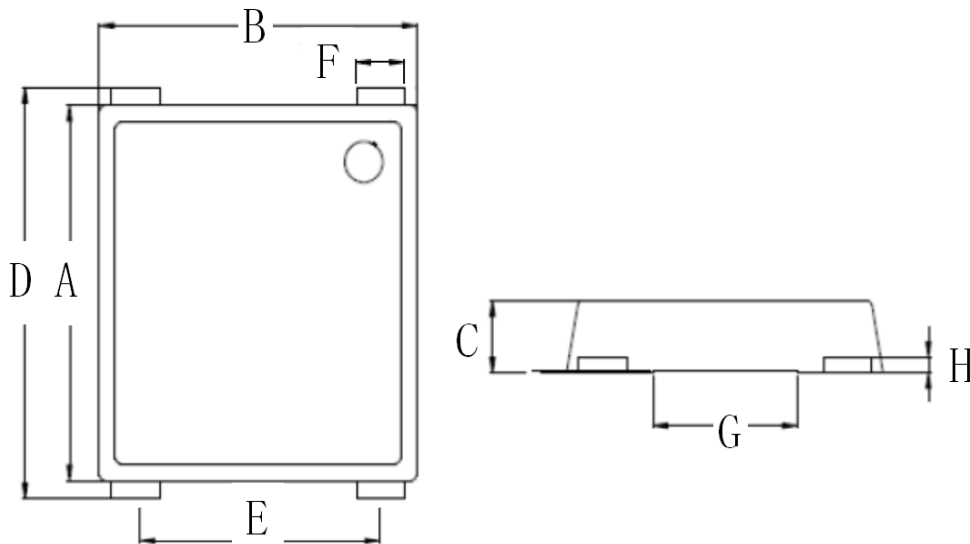


| DEVICE TYPE | Tape width | 13" Reel | | |
|-------------|------------|-----------------|-------------|-----------------|
| | | Q'TY/REEL (pcs) | BOX/CARTOON | Q'TY/REEL (pcs) |
| MSB | 16mm | 3000 | 6000 | 60000 |



Outline Dimensions

MSB



| MSB | | | | |
|-----|---------|------|-----|-----|
| DIM | INC HES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | 0.28 | 0.29 | 7.0 | 7.4 |
| B | 0.26 | 0.27 | 6.5 | 6.9 |
| C | 0.05 | 0.06 | 1.2 | 1.6 |
| D | 0.32 | 0.35 | 8.2 | 8.8 |
| E | 0.19 | 0.21 | 4.9 | 5.3 |
| F | 0.04 | 0.05 | 0.9 | 1.3 |
| G | 0.11 | 0.13 | 2.8 | 3.2 |
| H | 0.01 | 0.02 | 0.2 | 0.4 |



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