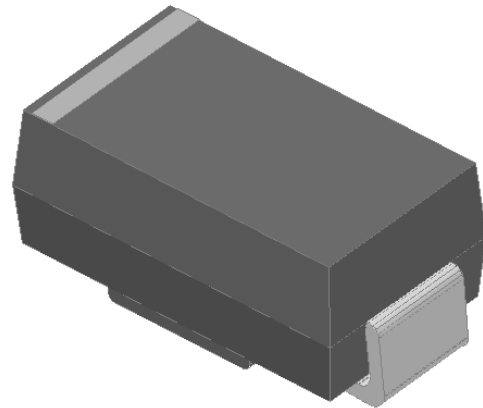




Ultrafast recovery Rectifier diode
Reverse Voltage 50V-1000v
Forward current-3A

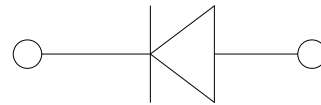
Features

- 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: SMB
- 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 | US3 | | 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 | $I_{O(AV)}$ | 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≤8.3ms Tj=25°C, Rating of per diode | I^2t | 26.6 | | A ² S |
| Maximum Forward Voltage at 3.0A DC | V_{FM} | 1.7 | | V |
| Maximum Reverse Current TA = 25°C | IR | 5.0 | | uA |
| at Rated DC Blocking Voltage TA = 100°C | | 100.0 | | |
| Maximum reverse recovery time | Trr | 50.0 | 75.0 | ns |
| Typical Thermal Resistance Between junction and | R_{QJa} | 65.0 | | °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

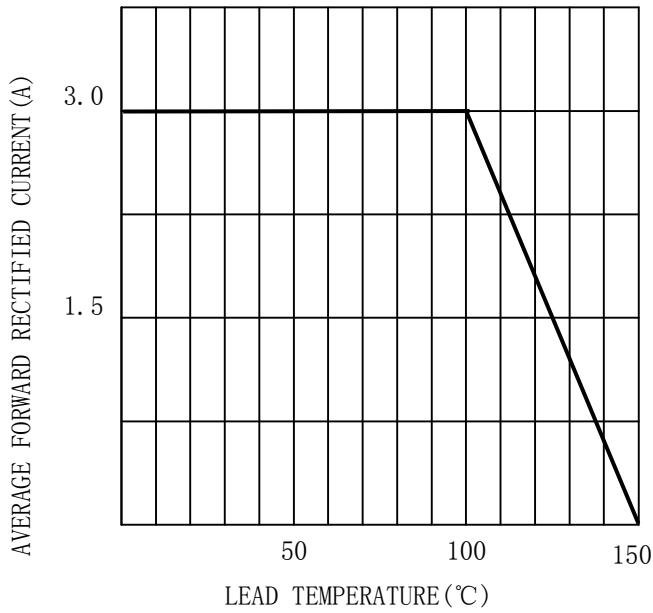


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

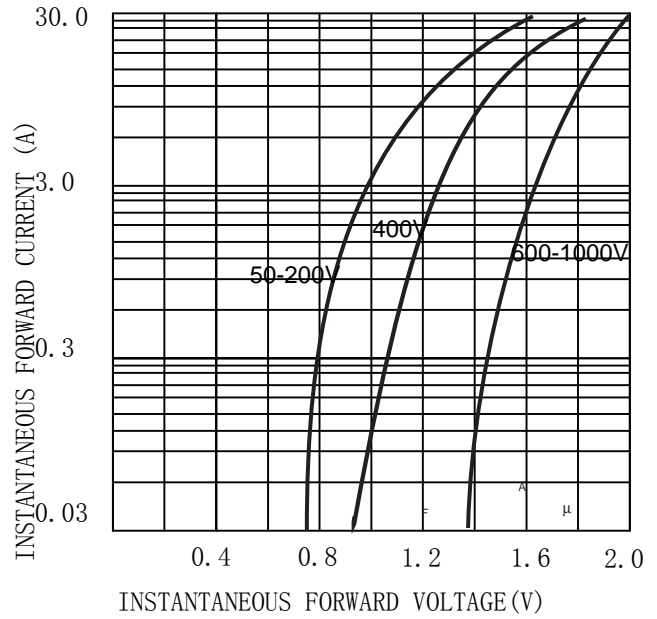


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

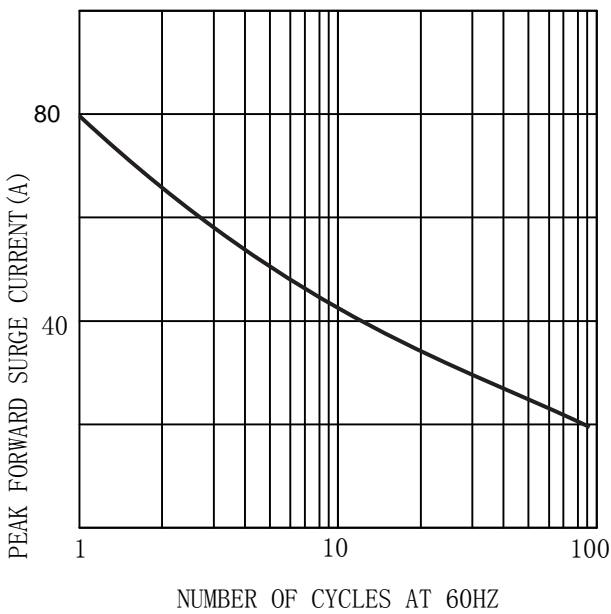
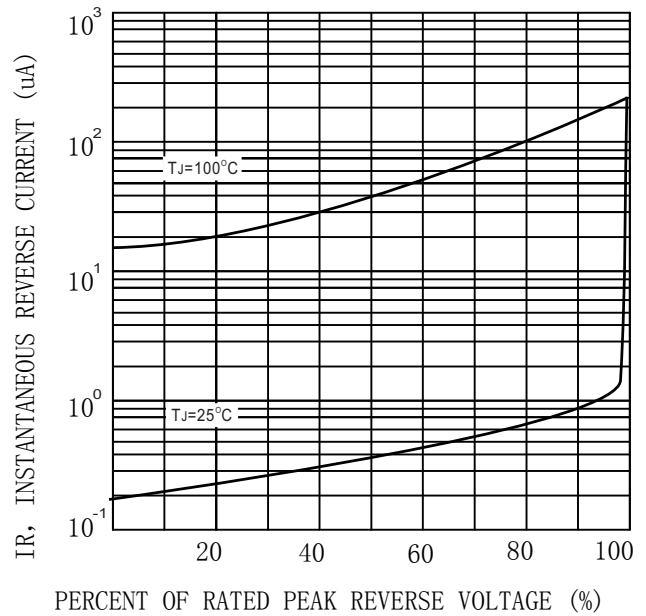



FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





MARKING INFORMATION

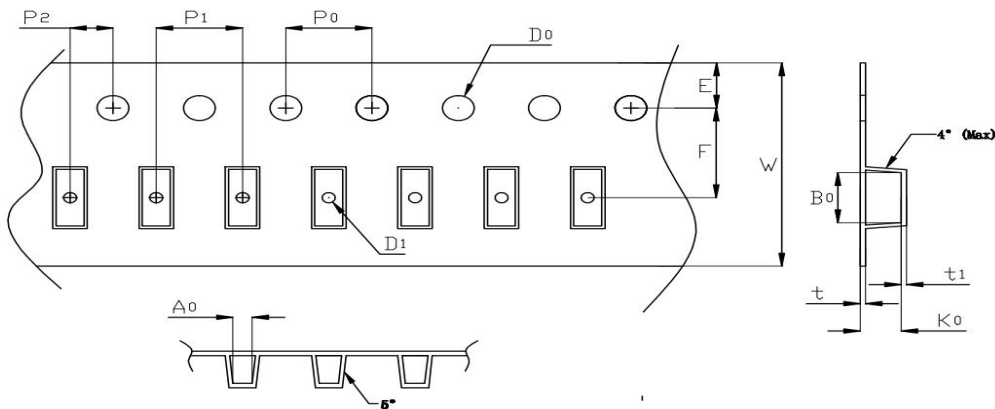


 = Logo
 ***** = Date Code Marking
 US3* = Marking Code

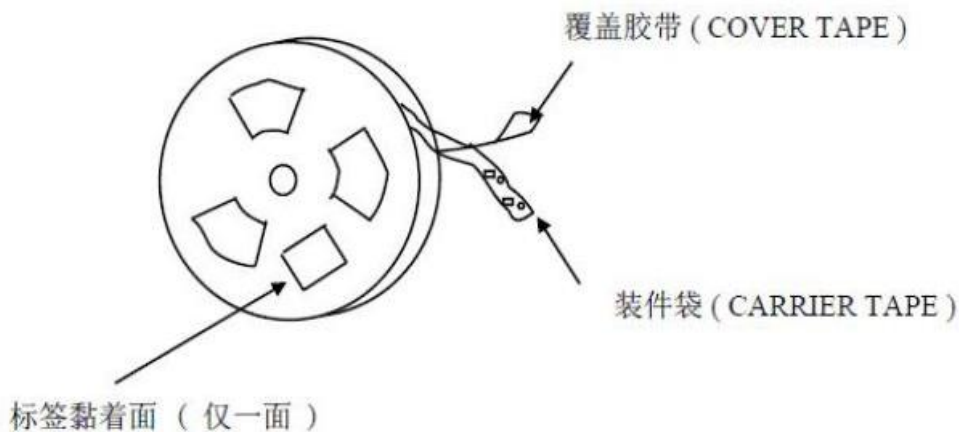
Print according to customer request

PACKING REQUIRMENTS

Carrier tape packing



| Specifications | Carrier tape type | Ao | Bo | Ko | Po | W | t | Explain |
|----------------|-------------------|-----------|-----------|------------|------------|------------|------------|---------|
| SMB | Anti-static | 3.8± 0.10 | 5.4± 0.10 | 2.45± 0.10 | 4.00± 0.10 | 12.0± 0.10 | 0.23± 0.05 | |

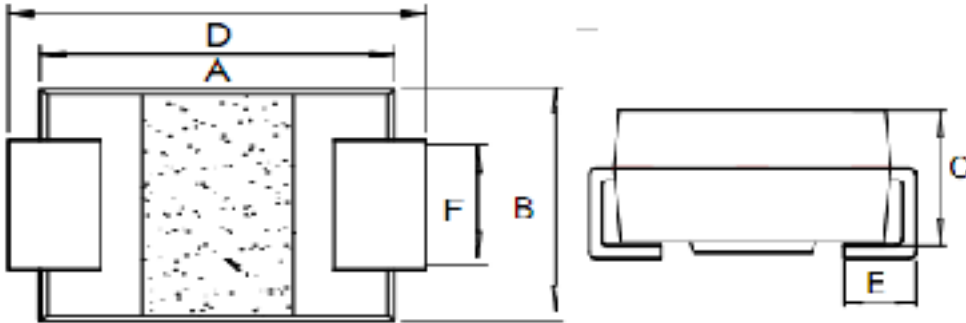


| DEVICE TYPE | Tape width | 13"Reel | | |
|-------------|------------|-----------------|--------------|-----------------|
| | | Q'TY/REEL (pcs) | BOX/CAR TOON | Q'TY/REEL (pcs) |
| SMB | 12mm | 3000 | 20 | 60000 |



Outline Dimensions

SMB



| SMB | | | | |
|-----|---------|------|-----|-----|
| DIM | INC HES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | 0.16 | 0.19 | 4 | 4.8 |
| B | 0.13 | 0.15 | 3.3 | 3.9 |
| C | 0.08 | 0.10 | 2 | 2.5 |
| D | 0.18 | 0.22 | 4.5 | 5.5 |
| E | 0.03 | 0.06 | 0.7 | 1.5 |
| F | 0.06 | 0.10 | 1.5 | 2.5 |



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