



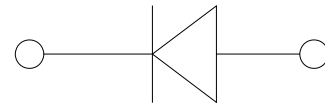
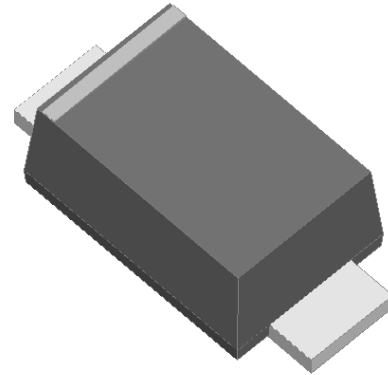
Rectifier diode
Reverse Voltage 50V-1000v
Forward current-1A

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: SOD123FL
- 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 | S1MD | 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 | $I_{O(AV)}$ | 1.0 | A |
| Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load (JEDEC Method) on rated | IFSM | 30.0 | A |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C | | 60.0 | A |
| Current squared time @1ms ≤ t ≤ 8.3ms Tj=25°C, Rating of per diode | I^2t | 3.7 | A ² S |
| Maximum Forward Voltage at 1.0A DC | V_{FM} | 1.1 | V |
| Maximum Reverse Current TA = 25°C | IR | 5.0 | uA |
| at Rated DC Blocking Voltage TA = 125°C | | 100.0 | |
| Typical Thermal Resistance Between junction and operating junction | 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

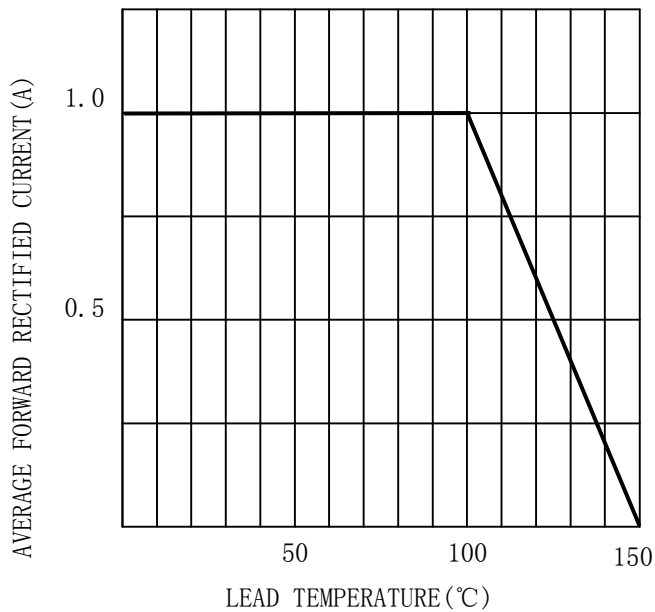


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

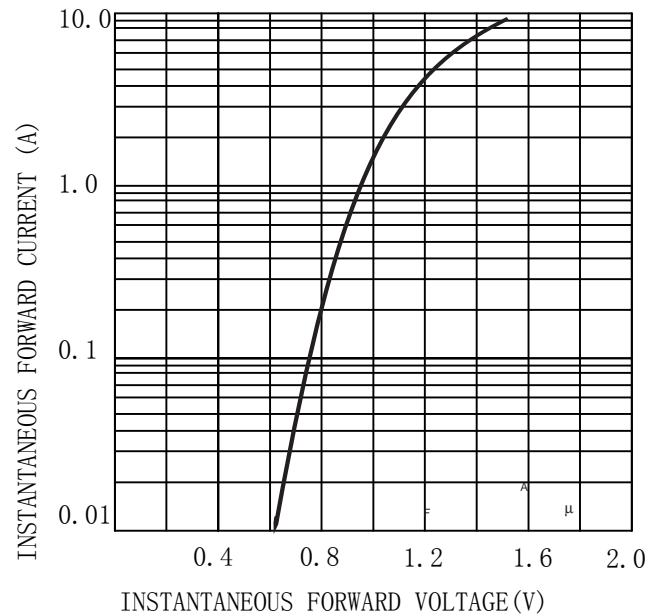


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

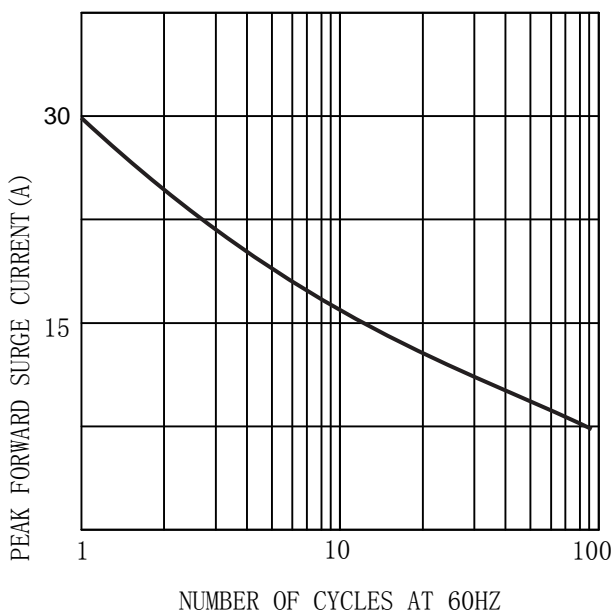
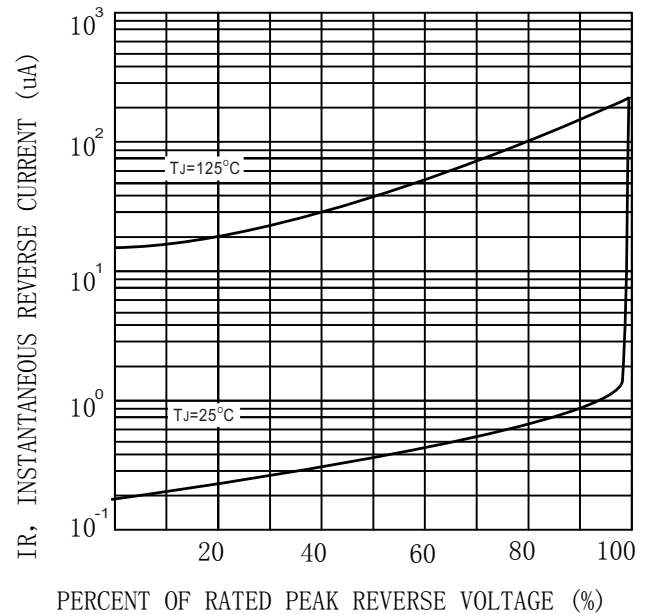


FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)





MARKING INFORMATION



= Logo

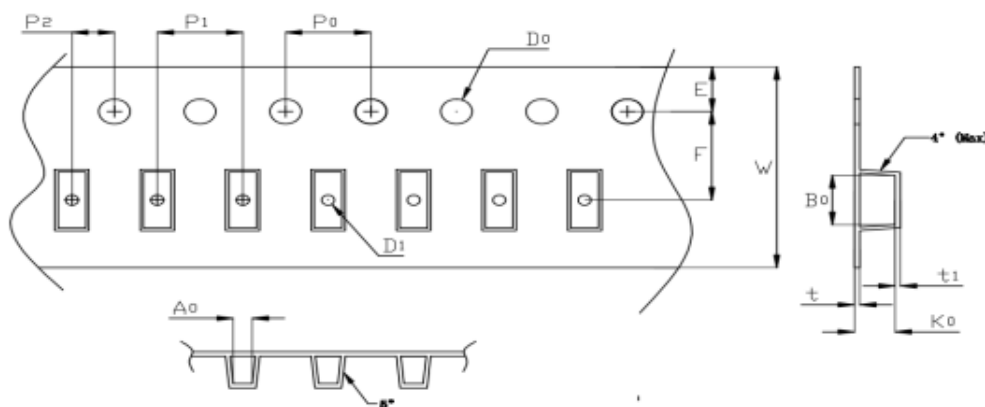
**** = Date Code Marking

S1M = Marking Code

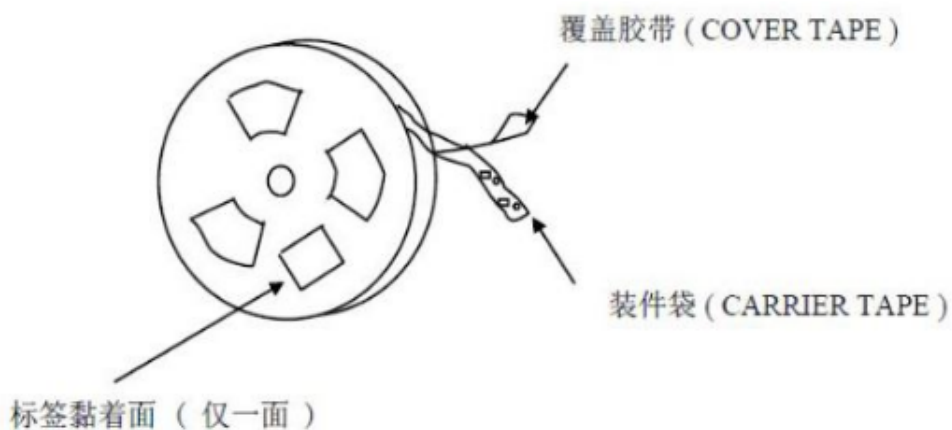
Print according to customer request

PACKING REQUIRMENTS

- Carrier tape packing



| Specifications | Carrier tape type | Ao | Bo | Ko | Po | W | t | Explain |
|----------------|-------------------|------------|------------|------------|------------|-----------|------------|---------|
| SOD-123FL | Anti-static | 1.95± 0.10 | 3.95± 0.10 | 1.35± 0.10 | 4.00± 0.10 | 8.0± 0.10 | 0.23± 0.05 | |

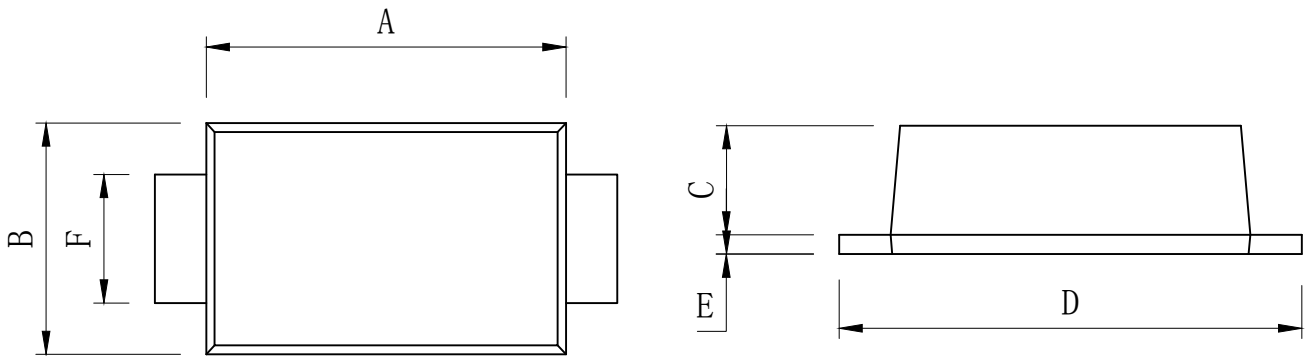


| DEVICE TYPE | Tape width | 7" Reel | | |
|-------------|------------|-----------------|--------------|-----------------|
| | | Q'TY/REEL (pcs) | BOX/CAR TOON | Q'TY/REEL (pcs) |
| SOD-123FL | 8mm | 3000 | 80 | 240000 |



Outline Dimensions

SOD123FL



| SOD123FL | | | | |
|----------|---------|------|-----|-----|
| DIM | INC HES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | 0.10 | 0.12 | 2.5 | 3 |
| B | 0.06 | 0.08 | 1.5 | 2 |
| C | 0.03 | 0.06 | 0.7 | 1.5 |
| D | 0.12 | 0.16 | 3 | 4 |
| E | / | 0.01 | / | 0.3 |
| F | 0.02 | 0.06 | 0.5 | 1.5 |



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