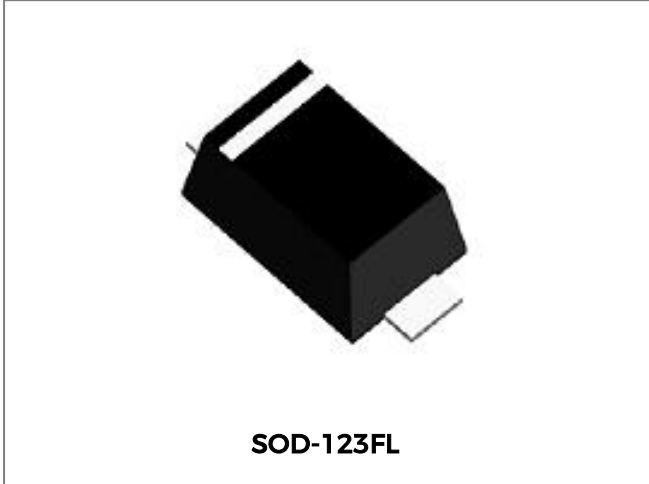


DSS34 SCHOTTKY BARRIER RECTIFIER



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- For surface mount applications
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- Low profile package
- Built-in strain relief, ideal for automated placement
- For use in low voltage, high frequency inverters, free wheeling, and polarity applications
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- “-A” is an AEC-Q101 qualified device
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band dentes cathode end
- Mounting Position: Any

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

| Characteristic | Symbol | DSS34 | Units |
|---|--------------------------------------|-------------|-------|
| Marking code | | S34 | |
| Maximum Repetitive Peak Reverse Voltage Maximum DC Blocking Voltage | V _{RRM} V _{DC} | 40 | V |
| Maximum RMS voltage | V _{RMS} | 28 | V |
| Maximum Average Forward Rectified Current (See fig.1) | I _{F(AV)} | 3.0 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 80.0 | A |
| Max Instantaneous Forward Voltage at 3.0A (Note 1) | V _F | 0.50 | V |
| Peak Reverse Current (Note 1) @T _A = 25°C At Rated DC Blocking Voltage (Note 1) @T _A = 100°C | I _{RM} | 0.2 20 | mA |
| Typical Junction Capacitance(Note 3) | C _J | 250 | pF |
| Typical Thermal Resistance(Note 2) | R _{θJA} R _{θJL} | 55 17 | °C/W |
| Operating Temperature Range | T _J | -65 to +150 | °C |
| Storage Temperature Range | T _{STG} | -65 to +150 | °C |

Note: 1. Pulse test: 300 us pulse width, 1% duty cycle.
2. PCB mounted on 0.55 X 0.55" (14 X 14 mm) copper pad areas.
3. Measured at 1MHz and applied reverse voltage of 4V D.C

Ratings and Characteristics Curves

FIG.1-FORWARD CURRENT DERATING CURVE

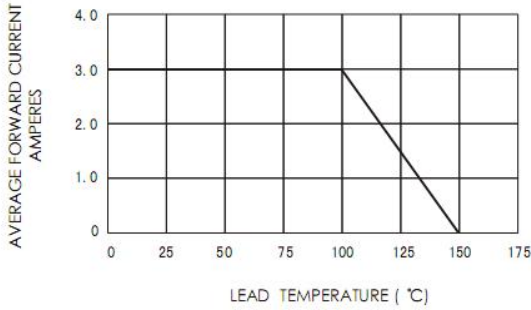


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

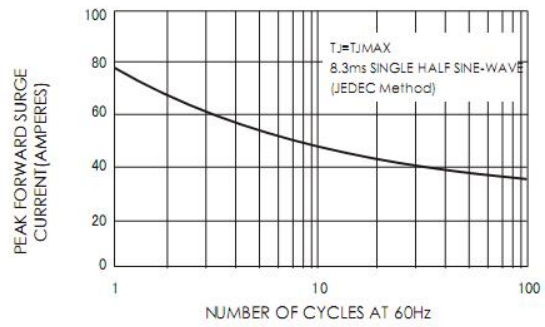


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

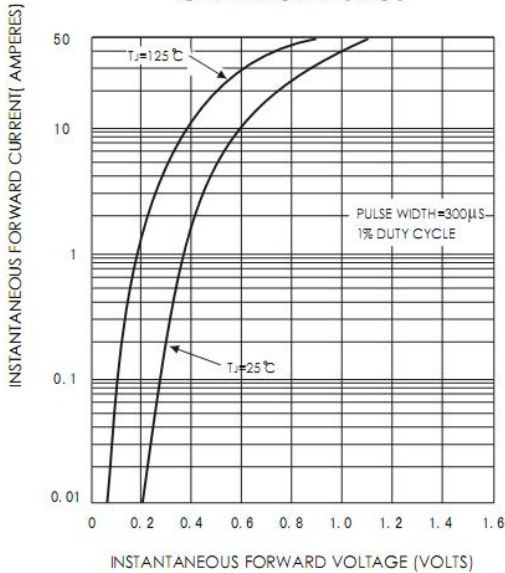


FIG.4-TYPICAL REVERSE CHARACTERISTICS

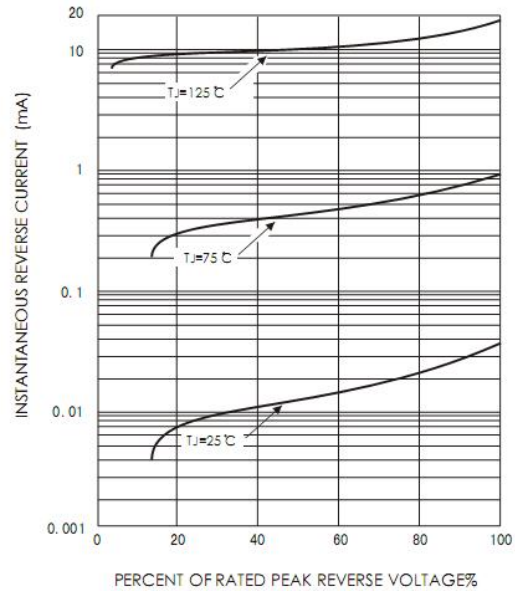


FIG.5-TYPICAL JUNCTION CAPACITANCE

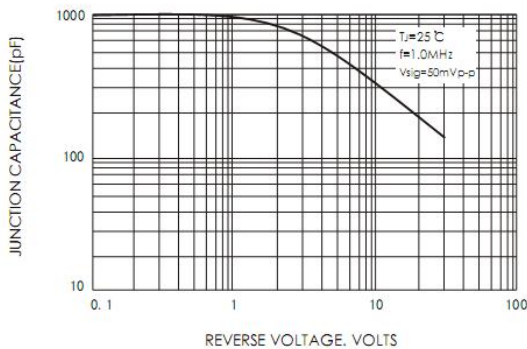
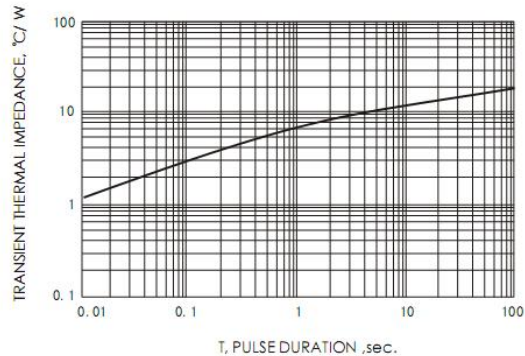
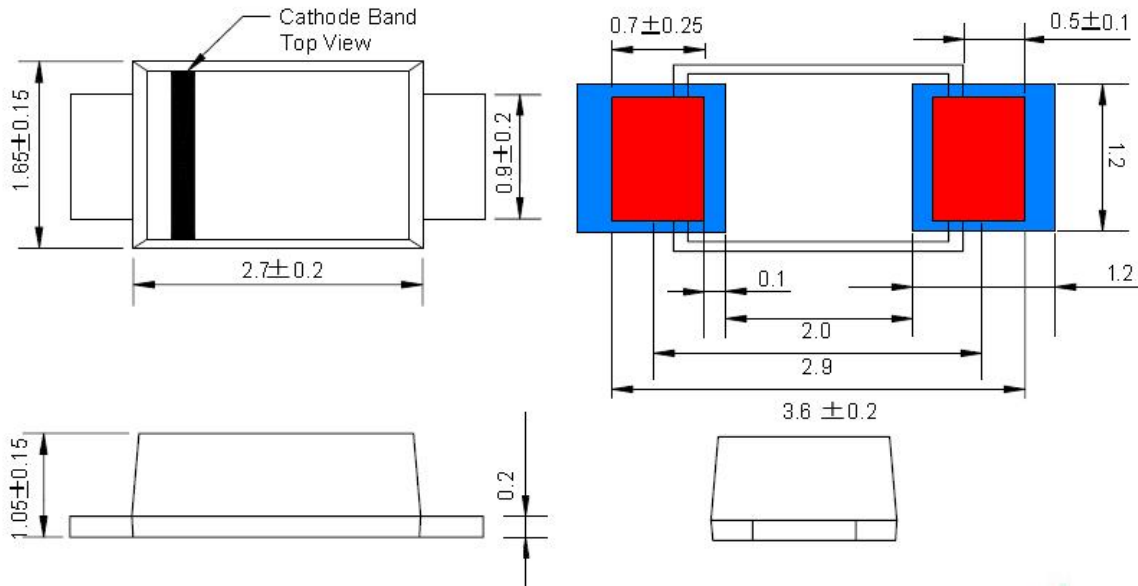


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Mechanical Dimensions SOD-123FL(Millimeters)

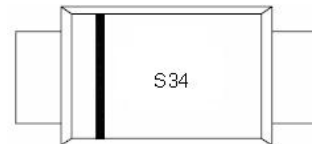


Note: Blue area is suggested pad layout and red area is package terminals.

Ordering Information

| Device | Package | Shipping |
|---------|-----------|----------------|
| DSS34 | SOD-123FL | 3000pcs / reel |
| DSS34TR | SOD-123FL | 3000pcs / reel |

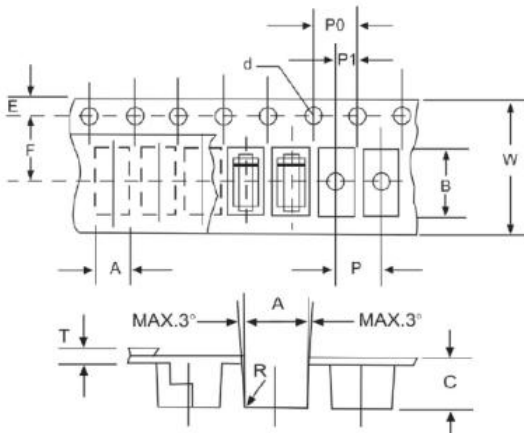
Marking Diagram



S34 = Marking Code

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Carrier Tape Specification SOD-123FL



| SYMBOL | Millimeters | |
|--------|-------------|------|
| | Min. | Max. |
| A | 1.95 | 2.15 |
| B | 3.85 | 4.05 |
| C | 1.35 | 1.55 |
| d | 1.50 | 1.60 |
| E | 1.65 | 1.85 |
| F | 3.40 | 3.60 |
| P | 3.90 | 4.10 |
| P0 | 3.90 | 4.10 |
| P1 | 1.90 | 2.10 |
| W | 7.90 | 8.30 |

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