

Features

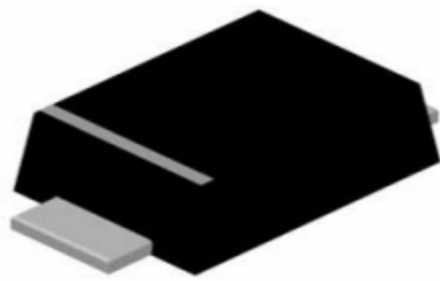
- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Low power loss, high efficiency
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: SOD-123FL, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0006 ounces, 0.0173 grams
- Polarity: Color band denotes cathode end
- Marking: RD

Dimensions and Pin Configuration

SOD123FL



Marking:RD

Maximum Ratings & Thermal Characteristics

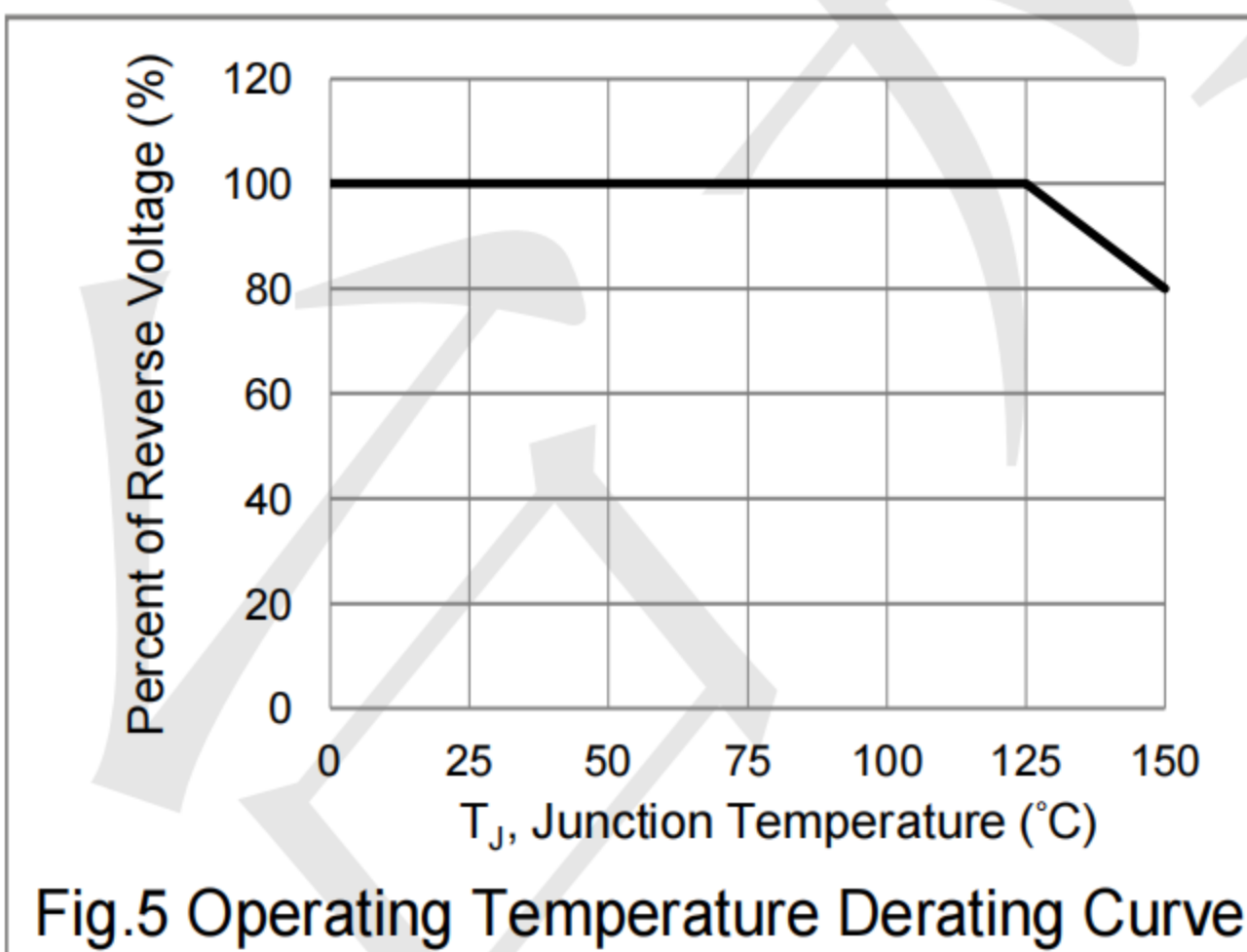
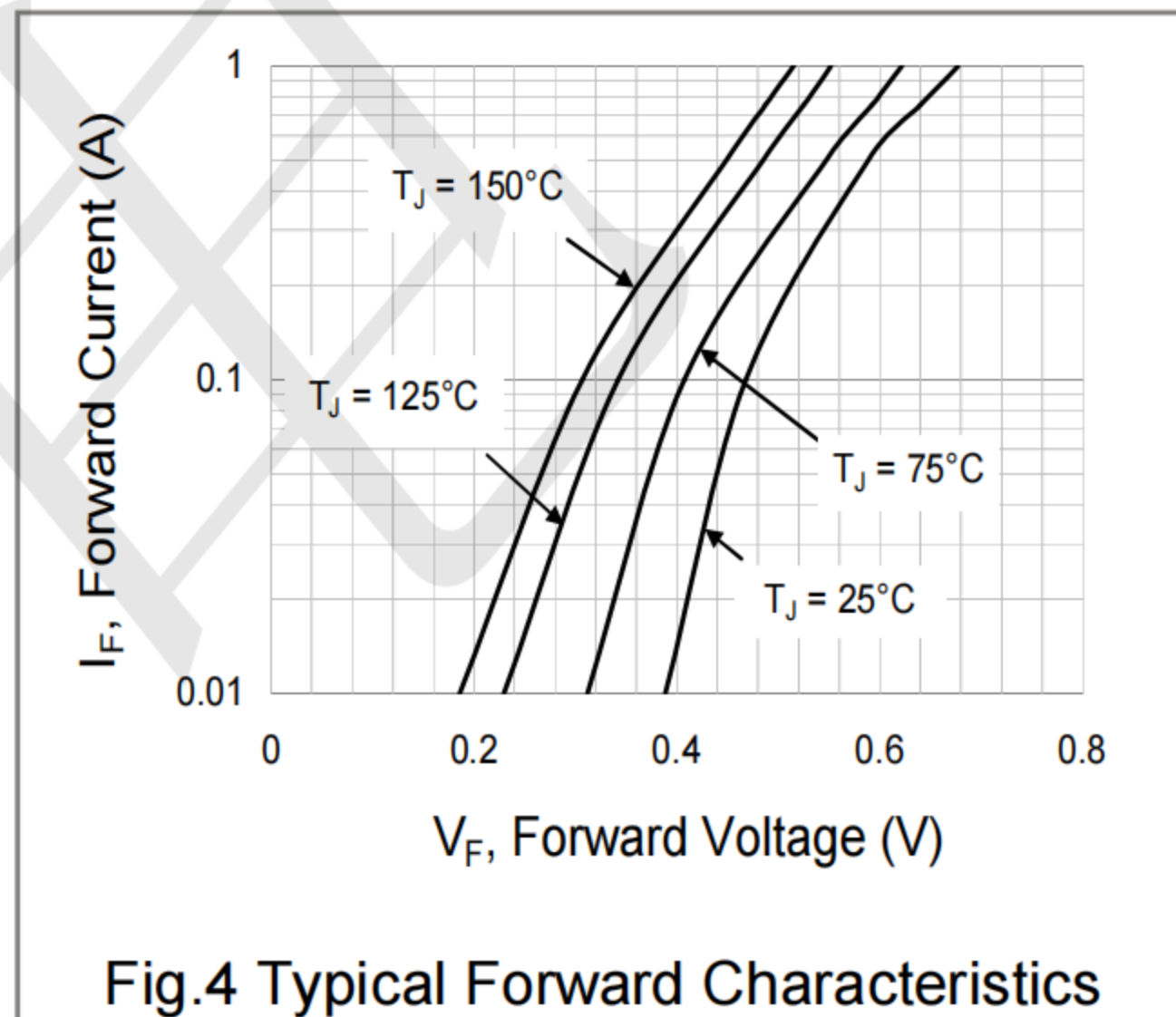
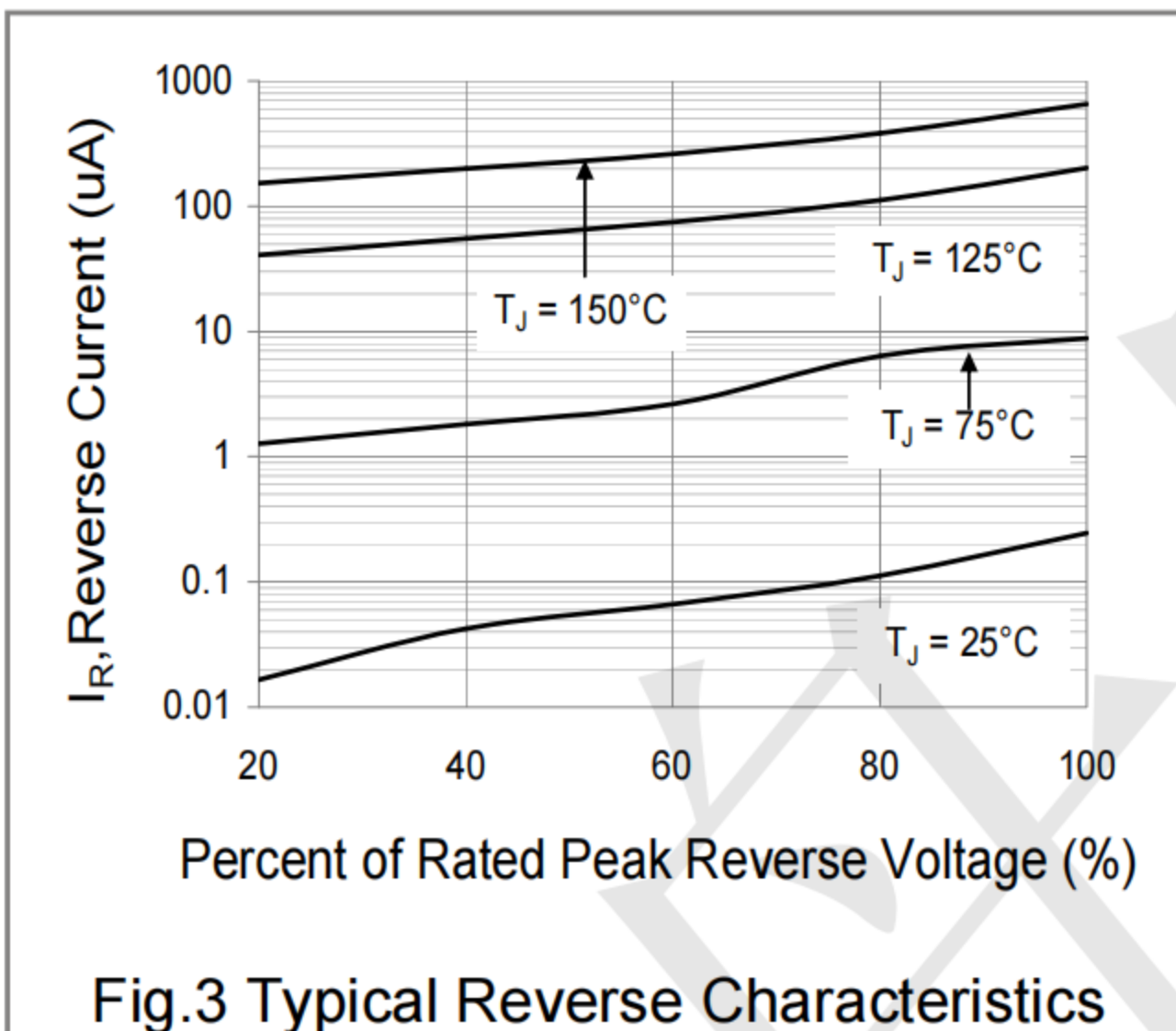
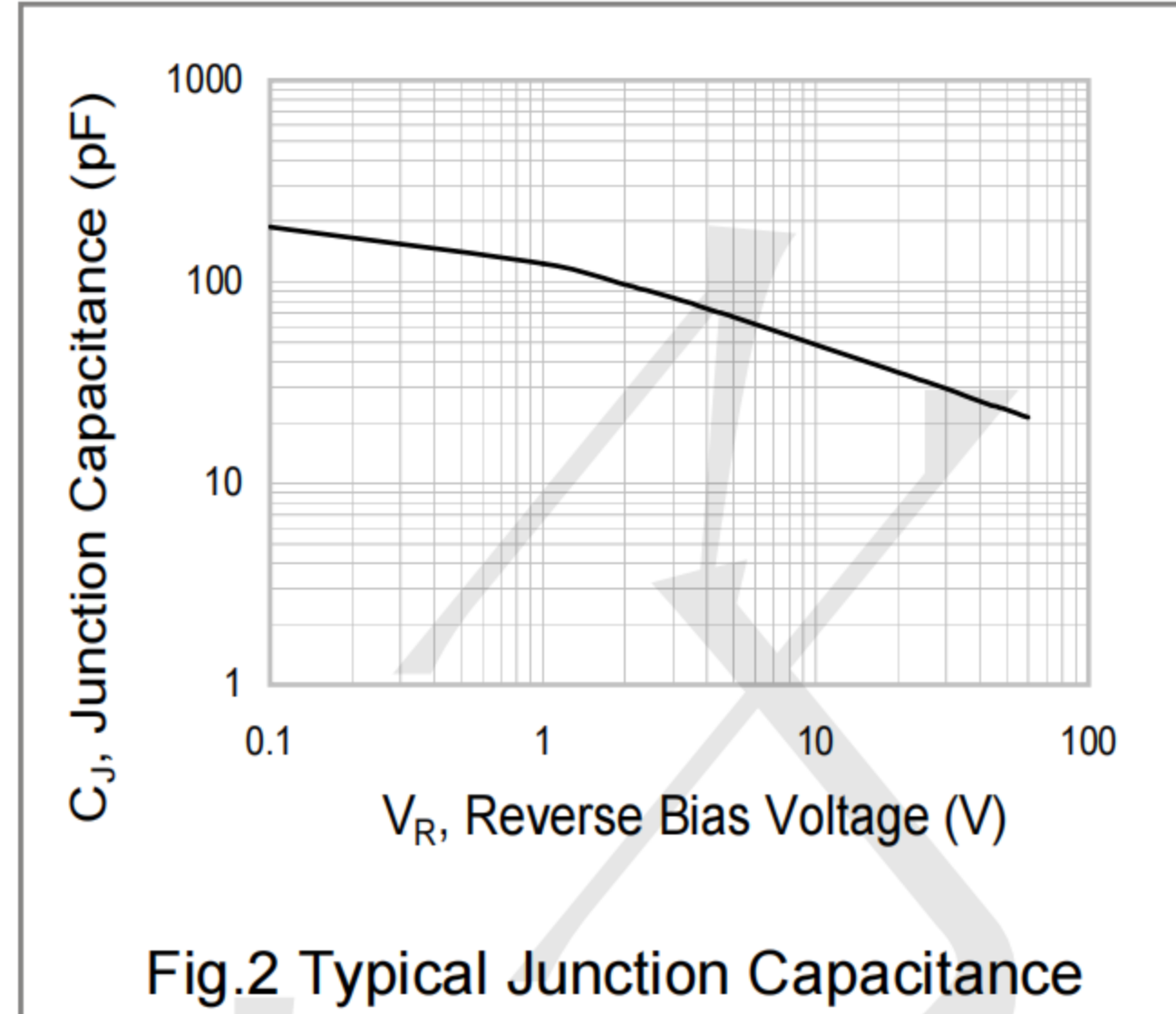
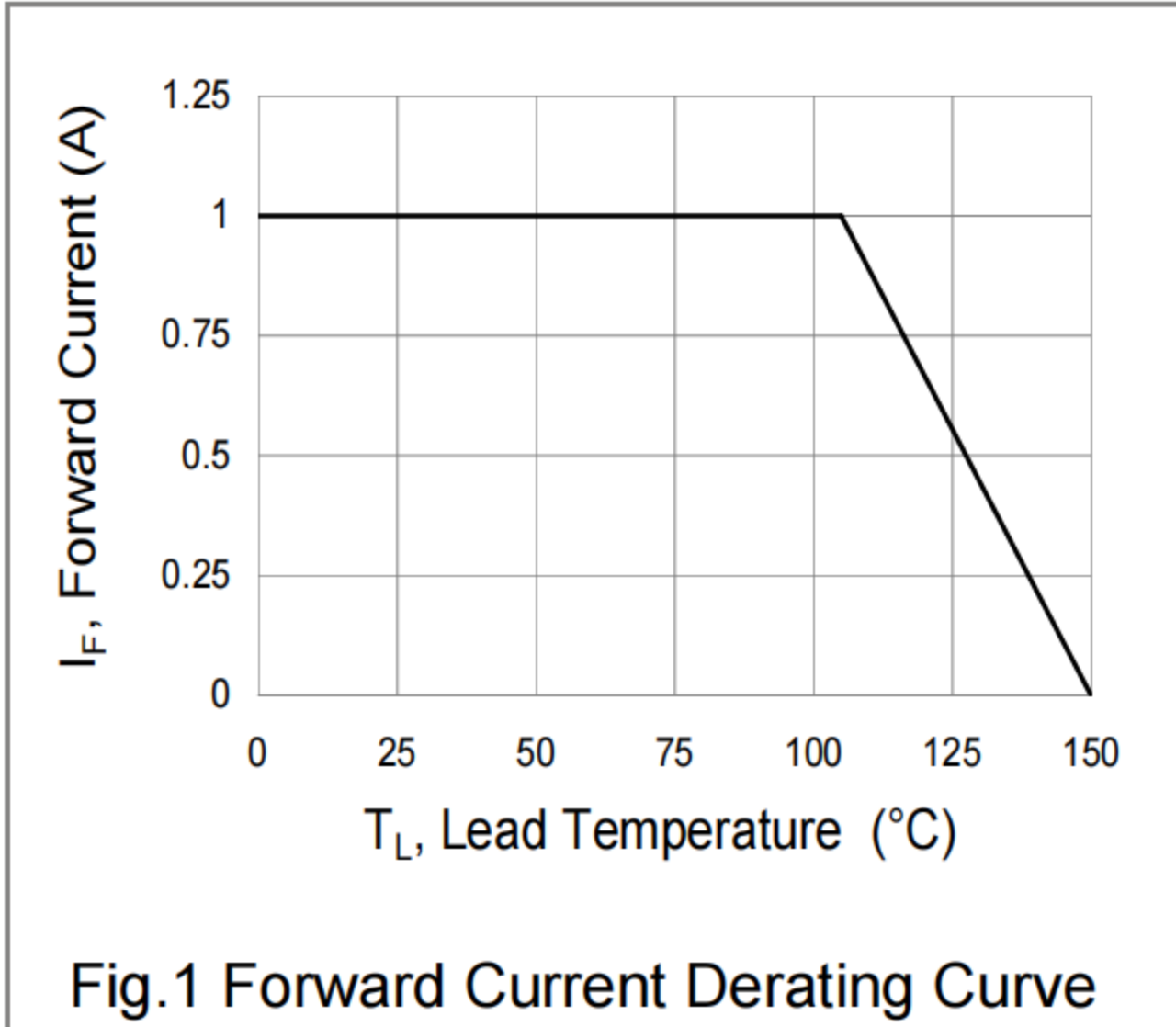
(Ratings at 25°C ambient temperature unless otherwise specified.)

| PARAMETER | SYMBOL | VALUE | UNITS |
|---|-----------------|-------------|-------|
| Reverse Voltage | V_R | 100 | V |
| Peak Reverse Voltage | V_{RRM} | 100 | V |
| Average Rectified Current | I_O | 1 | A |
| Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 50 | A |
| Typical Thermal Resistance, Junction to Ambient (Note 1) | $R_{\theta JA}$ | 180 | °C/W |
| Operating Junction Temperature and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | °C |

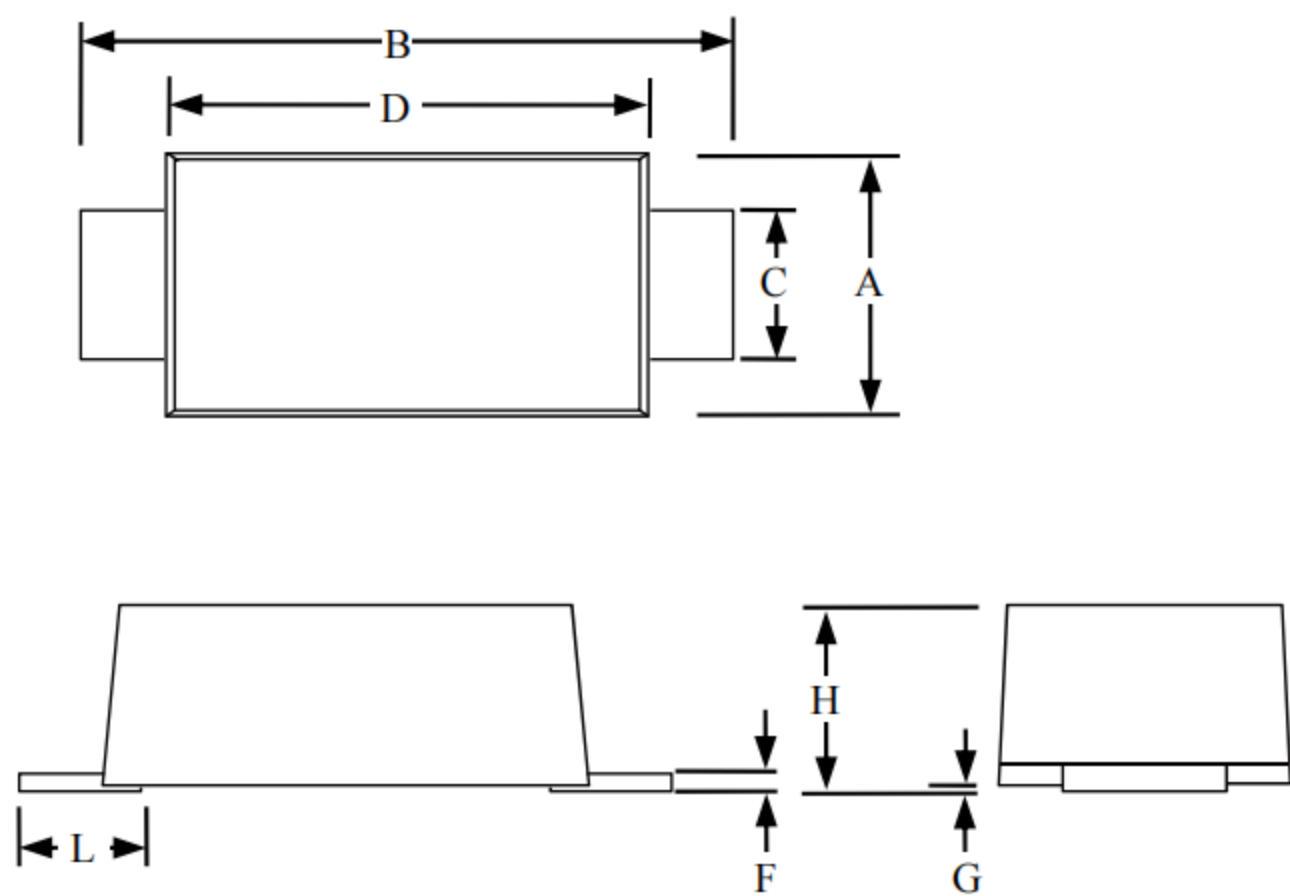
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
|------------------------------|------------|--------------------|------|------|------|-------|
| Reverse Breakdown Voltage | $V_{(BR)}$ | $I_R=1mA$ | 100 | 110 | | V |
| Reverse Current | I_R | $V_R=100V$ | - | - | 100 | μA |
| Forward Voltage | V_F | $I_F=1.0A$ | - | 0.68 | 0.75 | V |
| Typical Junction Capacitance | C_J | $V_R=0V, f=1.0MHz$ | - | 203 | - | pF |

Typical Performance Characteristics (TA=25°C unless otherwise Specified)



Package Outline Dimensions: SOD123FL



| SOD-123FL | | | | | | |
|-----------|--------|-----|-------|-------------|-----|------|
| Dimension | Inches | | | Millimeters | | |
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 0.059 | | 0.079 | 1.5 | | 2 |
| B | 0.134 | | 0.154 | 3.4 | | 3.9 |
| C | 0.028 | | 0.047 | 0.7 | | 1.2 |
| D | 0.098 | | 0.114 | 2.5 | | 2.9 |
| F | 0.002 | | 0.01 | 0.05 | | 0.26 |
| G | - | | 0.004 | - | | 0.1 |
| H | 0.037 | | 0.053 | 0.95 | | 1.35 |
| L | 0.014 | | 0.035 | 0.35 | | 0.9 |