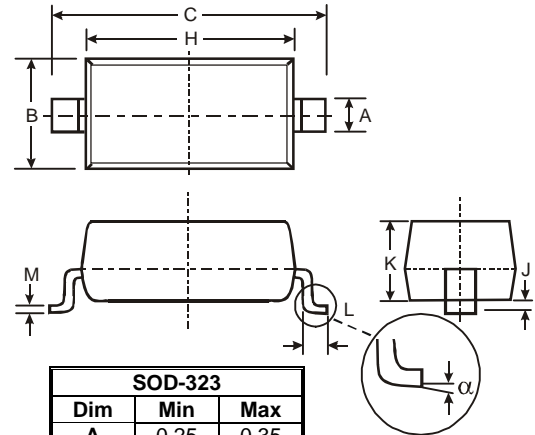


Features

- These diodes are also available in other case styles including the DO35 case with the type designation 1N4148, the MiniMELF case with the type designation LL4148, and the SOT23 case with the type designation IMBD4148-V
- Silicon epitaxial planar diode
- Fast switching diodes
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



| SOD-323 | | |
|----------|------|------|
| Dim | Min | Max |
| A | 0.25 | 0.35 |
| B | 1.20 | 1.40 |
| C | 2.30 | 2.70 |
| H | 1.60 | 1.80 |
| J | 0.00 | 0.10 |
| K | 1.0 | 1.1 |
| L | 0.20 | 0.40 |
| M | 0.10 | 0.15 |
| α | 0° | 8° |

All Dimensions in mm

Mechanical Data

- **Case:** SOD323 plastic case
- **Weight:** approx. 4.3 mg
- **Packaging Codes/Options:**
GS18/10 k per 13" reel (8 mm tape), 10 k/box
GS08/3 k per 7" reel (8 mm tape), 15 k/box

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

| Parameter | Test condition | Symbol | Value | Unit | | |
|---|---|--------------------|-------------------|------|------|------|
| Reverse voltage | | V _R | 75 | V | | |
| Repetitive peak reverse voltage | | V _{RRM} | 100 | V | | |
| Average rectified current half wave rectification with resistive load | f ≥ 50 Hz | I _{F(AV)} | 150 ¹⁾ | mA | | |
| Surge forward current | t < 1 s and T _j = 25 °C | I _{FSM} | 350 | mA | | |
| Power dissipation | | P _{tot} | 200 ¹⁾ | mW | | |
| Parameter | Test condition | Symbol | Min | Typ. | Max | Unit |
| Forward voltage | I _F = 10 mA | V _F | | | 1000 | mV |
| | I _F = 100 mA | V _F | | | 1200 | mV |
| Leakage current | V _R = 20 V | I _R | | | 25 | nA |
| | V _R = 75 V | I _R | | | 5 | μA |
| | V _R = 100 V | I _R | | | 100 | μA |
| | V _R = 20 V, T _j = 150 °C | I _R | | | 50 | μA |
| Diode capacitance | V _F = V _R = 0 V | C _D | | | 4 | pF |
| Voltage rise when switching ON (tested with 50 mA pulses) | tested with 50 mA pulses, t _p = 0.1 μs, rise time < 30 ns, f _p = (5 to 100) kHz | V _{fr} | | | 2.5 | V |
| Reverse recovery time | I _F = 10 mA, I _R = 1 mA, V _R = 6 V, R _L = 100 Ω | t _{rr} | | | 4 | ns |
| Rectification efficiency | f = 100 MHz, V _{RF} = 2 V | η _v | 0.45 | | | |

Note:

¹⁾ Valid provided that electrodes are kept at ambient temperature.

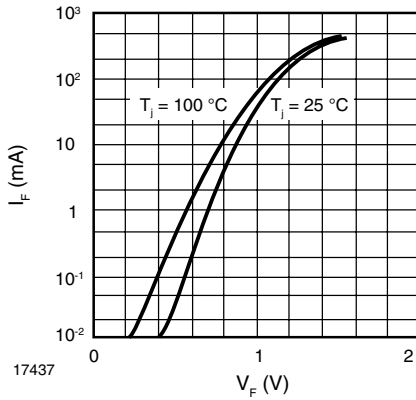


Figure 1. Forward characteristics

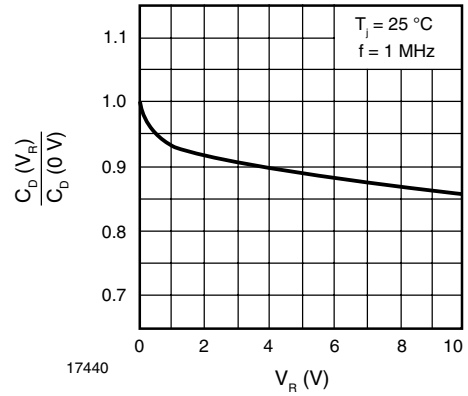


Figure 4. Relative Capacitance vs. Reverse Voltage

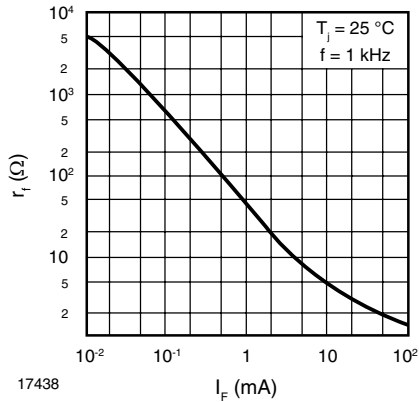


Figure 2. Dynamic Forward Resistance vs. Forward Current

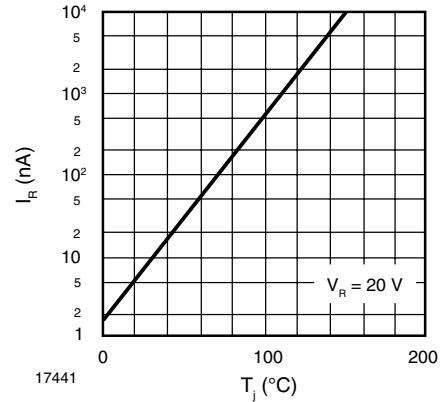


Figure 5. Leakage Current vs. Junction Temperature

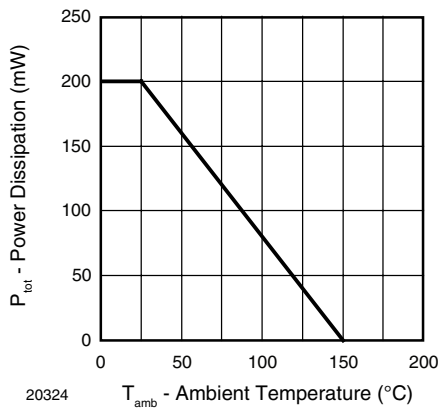


Figure 3. Admissible Power Dissipation vs. Ambient Temperature

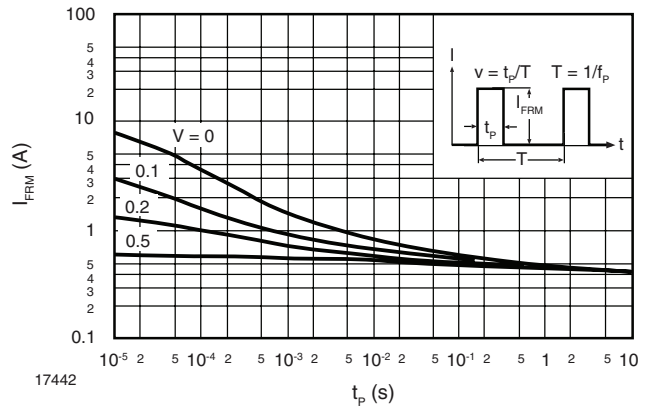


Figure 6. Admissible Repetitive Peak Forward Current vs. Pulse Duration