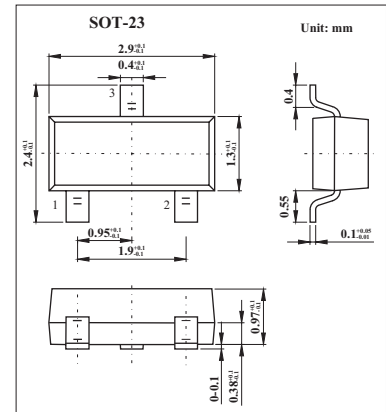


Silicon PIN Diodes

BAR17

■ Features

- RF switch
- RF attenuator for frequencies above 1 MHz
- Low distortion factor
- Long-term stability of electrical characteristics

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Value | Unit |
|---|------------|-------------|------------------|
| Reverse voltage | V_R | 100 | V |
| Forward current | I_F | 140 | mA |
| Total power dissipation, $T_s \leq 95^\circ\text{C}^{1)}$ | P_{tot} | 250 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |
| Operating temperature range | T_{op} | -55 to +150 | $^\circ\text{C}$ |
| Junction - ambient ¹⁾ | R_{thJA} | ≤ 295 | K/W |
| Junction - soldering point | R_{thJS} | ≤ 215 | |

Note

1. Package mounted on alumina $15\text{ mm} \times 16.7\text{ mm} \times 0.7\text{ mm}$.

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|--------------------------|----------|--|-----|------|------|----------------|
| Reverse current | I_R | $V_R = 50\text{ V}$ | | | 50 | nA |
| | | $V_R = 100\text{ V}$ | | | 1 | $\mu\text{ A}$ |
| Forward voltage | V_F | $I_F = 100\text{ mA}$ | | 0.91 | 1 | V |
| Diode capacitance | C_T | $V_R = 50\text{ V}, f = 1\text{ MHz}$ | | 0.32 | 0.55 | pF |
| | | $V_R = 0, f = 100\text{ MHz}$ | | 0.37 | | |
| Charge carrier life time | τ_L | $I_F = 10\text{ mA}, I_R = 6\text{ mA}$ | | 4 | | $\mu\text{ s}$ |
| Forward resistance | r_f | $I_F = 0.01\text{ mA}, f = 100\text{ MHz}$ | | 1150 | | Ω |
| | | $I_F = 0.1\text{ mA}, f = 100\text{ MHz}$ | | 160 | | |
| | | $I_F = 1\text{ mA}, f = 100\text{ MHz}$ | | 23 | | |
| | | $I_F = 10\text{ mA}, f = 100\text{ MHz}$ | | 3.5 | | |

■ Marking

| | |
|---------|----|
| Marking | L6 |
|---------|----|