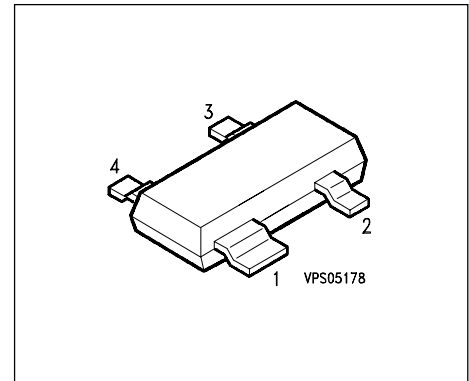


Silicon RF Switching Diode

Preliminary data

- Low loss, low capacitance PIN-Diode
- Band switch for TV-tuners
- Series diode for mobile communications transmit-receive switch
- Unconnected pair



| Type | Marking | Ordering Code | Pin Configuration | | | | Package |
|-----------|---------|---------------|-------------------|--------|--------|--------|---------|
| BAR 65-07 | M | UPON INQUIRY | 1 = C1 | 2 = C2 | 3 = A2 | 4 = A1 | SOT-143 |

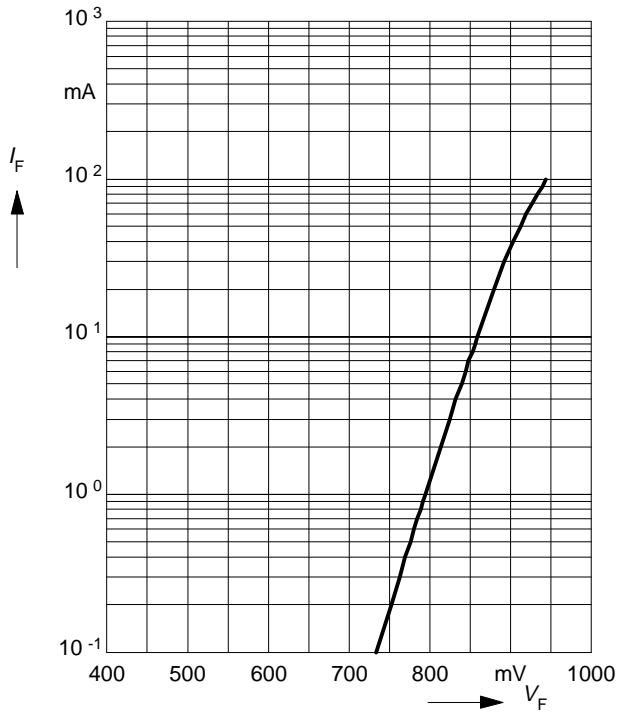
Maximum Ratings

| Parameter | Symbol | Values | Unit |
|-----------------------------|-----------|----------------|------|
| Diode reverse voltage | V_R | 30 | V |
| Forward current | I_F | 100 | mA |
| Operating temperature range | T_{op} | - 55 ... + 125 | °C |
| Storage temperature | T_{stg} | - 55 ... + 150 | |

Electrical Characteristics at $T_A=25^\circ\text{C}$, unless otherwise specified

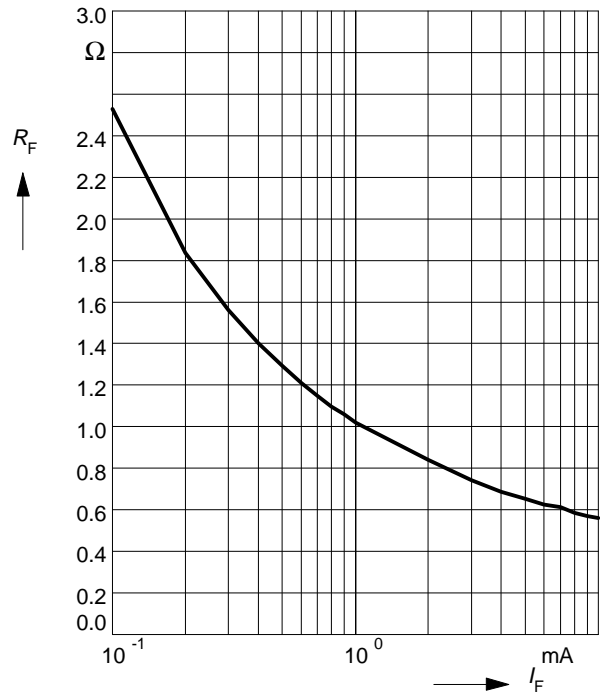
| Parameter | Symbol | Values | | | Unit |
|---|--------|-------------|-------------------|------------------|----------|
| | | min. | typ. | max. | |
| DC characteristics | | | | | |
| Reverse current $V_R = 20\text{ V}, T_A = 25^\circ\text{C}$ | I_R | - | - | 20 | nA |
| Forward voltage $I_F = 100\text{ mA}$ | V_F | - | 0.93 | 1 | V |
| AC characteristics | | | | | |
| Diode capacitance $V_R = 1\text{ V}, f = 1\text{ MHz}$ $V_R = 3\text{ V}, f = 1\text{ MHz}$ | C_T | - - | 0.6 0.57 | 0.9 0.8 | pF |
| Forward resistance $I_F = 5\text{ mA}, f = 100\text{ MHz}$ $I_F = 10\text{ mA}, f = 100\text{ MHz}$ | r_f | - - - | - 0.65 0.56 | - 0.95 0.9 | Ω |
| Series inductance | L_S | - | 1.4 | - | nH |

Forward current $I_F = f(V_F)$



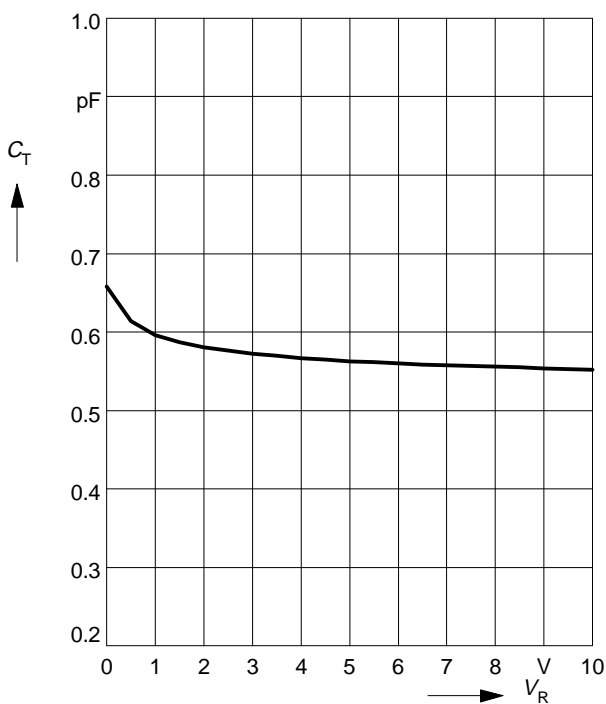
Forward resistance $r_f = f(I_F)$

$f = 100\text{MHz}$



Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



Diode capacitance $C_T = f(V_R)$

$f = 100\text{MHz}$

