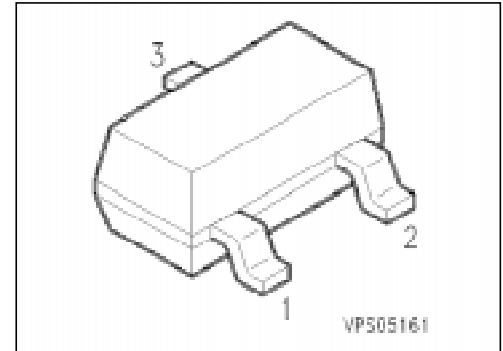


Silicon PIN Diode

BA 885

- Current-controlled RF resistor for switching and attenuating applications
- Frequency range 1 MHz ... 2 GHz
- Especially useful as antenna switch in TV-sat tuners



| Type | Marking | Ordering Code (tape and reel) | Pin Configuration | Package ¹⁾ |
|--------|---------|-------------------------------|-------------------|-----------------------|
| BA 885 | PA | Q62702-A608 | | SOT-23 |

Maximum Ratings

| Parameter | Symbol | Values | Unit |
|-----------------------------|-----------|----------------|------|
| Reverse voltage | V_R | 50 | V |
| Forward current | I_F | 50 | mA |
| Operating temperature range | T_{op} | - 55 ... + 125 | °C |
| Storage temperature range | T_{stg} | - 55 ... + 150 | |

Thermal Resistance

| | | | |
|----------------------------------|-------------|-------|-----|
| Junction - ambient ²⁾ | $R_{th JA}$ | ≤ 450 | K/W |
|----------------------------------|-------------|-------|-----|

¹⁾ For detailed information see chapter Package Outlines.

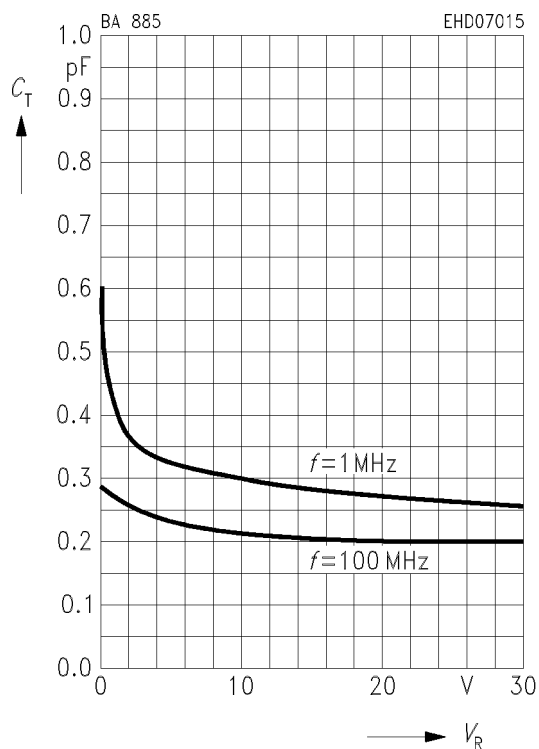
²⁾ Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

Electrical Characteristics

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

| Parameter | Symbol | Values | | | Unit |
|--|--------|--------|--------------|------------|---------------|
| | | min. | typ. | max. | |
| Forward voltage $I_F = 50\text{ mA}$ | V_F | – | – | 1.1 | V |
| Reverse current $V_R = 30\text{ V}$ | I_R | – | – | 50 | nA |
| Diode capacitance $V_R = 10\text{ V}, f = 1\text{ MHz}$ $V_R = 0\text{ V}, f = 100\text{ MHz}$ | C_T | – | 0.28 0.23 | 0.6 0.4 | pF |
| Forward resistance $f = 100\text{ MHz}$ $I_F = 1.5\text{ mA}$ $I_F = 10\text{ mA}$ | r_f | – | 22 5 | 40 7 | Ω |
| Zero bias conductance $V_R = 0\text{ V}, f = 100\text{ MHz}$ | g_p | – | 70 | – | μS |
| Series inductance | L_s | – | 2 | – | nH |

Diode capacitance $C_T = f(V_R)$
 $f = 1\text{ MHz} / 100\text{ MHz}$



Forward resistance $r_f = f(I_F)$
 $f = 100\text{ MHz}$

