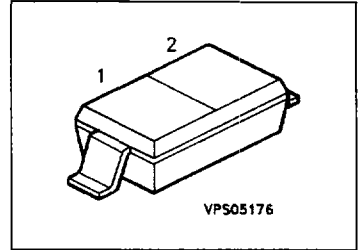



Silicon RF Switching Diode

BA 582

- For low-loss VHF band switching in TV/VTR tuners



| Type | Marking | Ordering Code | Pin Configuration | Package ¹⁾ |
|--------|---------|---------------|---|-----------------------|
| BA 582 | blue S | Q62702-A829 |  | SOD-123 |

Maximum Ratings

| Parameter | Symbol | Values | Unit |
|-----------------------------------|-----------|----------------|------|
| Reverse voltage | V_R | 35 | V |
| Forward current, $T_A \leq 60$ °C | I_F | 100 | mA |
| Operation temperature range | T_{op} | - 55 ... + 125 | °C |
| Storage temperature range | T_{stg} | - 55 ... + 150 | |

Thermal Resistance

| | | | |
|--------------------|-------------|------------|-----|
| Junction - ambient | $R_{th JA}$ | ≤ 600 | K/W |
|--------------------|-------------|------------|-----|

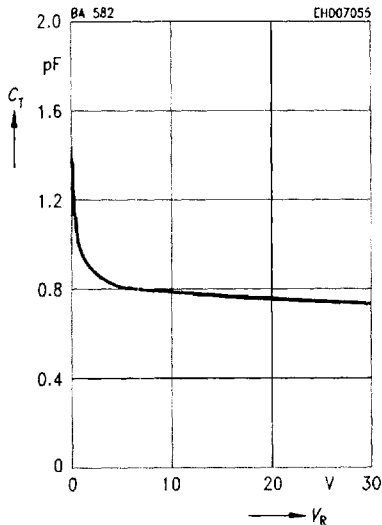
1) For detailed information see chapter Package Outlines.

Electrical Characteristics

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

| Parameter | Symbol | Values | | | Unit |
|---|---------|----------|--------------|------------|------------|
| | | min. | typ. | max. | |
| Forward voltage $I_F = 100\text{ mA}$ | V_F | - | - | 1 | V |
| Reverse current $V_R = 20\text{ V}$ | I_R | - | - | 20 | nA |
| Diode capacitance $f = 1\text{ MHz}$ $V_R = 1\text{ V}$ $V_R = 3\text{ V}$ | C_T | - 0.6 | 0.92 0.85 | 1.4 1.1 | pF |
| Forward resistance $f = 100\text{ MHz}$ $I_F = 3\text{ mA}$ $I_F = 10\text{ mA}$ | r_i | - - | 0.45 0.38 | 0.7 0.5 | Ω |
| Reverse resistance $V_R = 1\text{ V}, f = 100\text{ MHz}$ | $1/g_p$ | - | 100 | - | k Ω |
| Series inductance | L_s | - | 2.8 | - | nH |

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



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

