

PNP Silicon Planar Transistor

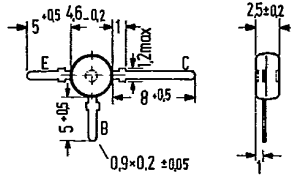
BF 967

SIEMENS AKTIENGESELLSCHAFT

for input stages up to 900 MHz

BF 967 is a PNP silicon UHF planar transistor with passivated surface in a low-capacitance plastic package similar to TO 119 (50 B 3 DIN 41867). The transistor is particularly suitable for use in low noise, gain-controlled input stages up to 900 MHz in tuners with diode tuning.

| Type | Ordering code |
|--------|---------------|
| BF 967 | Q62702-F503 |



Approx. weight 0.26 g Dimensions in mm

Maximum ratings

| | | | |
|---------------------------|------------|-------------|----|
| Collector-emitter voltage | $-V_{CEO}$ | 30 | V |
| Collector-base voltage | $-V_{CBO}$ | 30 | V |
| Emitter-base voltage | $-V_{EBO}$ | 3 | V |
| Collector current | $-I_C$ | 20 | mA |
| Base current | $-I_B$ | 5 | mA |
| Junction temperature | T_j | 150 | °C |
| Storage temperature range | T_{stg} | -55 to +150 | °C |
| Total power dissipation | P_{tot} | 160 | mW |

Thermal resistance

| | | | |
|-------------------------|------------|-----|-----|
| Junction to ambient air | R_{thJA} | 600 | K/W |
|-------------------------|------------|-----|-----|

Static characteristics ($T_{amb} = 25^{\circ}\text{C}$)

| | | | |
|--|------------|----------|----|
| Collector cutoff current ($-V_{CBO} = 15\text{ V}$) | $-I_{CBO}$ | 1 (<100) | nA |
| DC current gain ($-V_{CE} = 10\text{ V}; -I_C = 1\text{ mA}$) | h_{FE} | 60 (>15) | - |
| Emitter cutoff current ($-I_C = 0; -V_{EB} = 1\text{ V}$) | $-I_{EBO}$ | <100 | nA |

Dynamic characteristics ($T_{amb} = 25^{\circ}\text{C}$)

| | | | |
|---|------------|------|-----|
| Transition frequency ($-I_C = 3\text{ mA}; -V_{CE} = 10\text{ V}; f = 100\text{ MHz}$) | f_T | 950 | MHz |
| Reverse transfer capacitance ($-V_{CE} = 1\text{ V}; f = 1\text{ MHz}$) | C_{12b} | 80 | fF |
| Collector-base capacitance ($-V_{CB} = 10\text{ V}; f = 1\text{ MHz}$) | $-C_{CBO}$ | 0.42 | pF |
| Power gain ($-I_C = 3\text{ mA}; -V_{CB} = 10\text{ V}; f = 800\text{ MHz}; R_L = 500\ \Omega$) | G_{pb} | 13 | dB |
| Noise figure ($-I_C = 3\text{ mA}; -V_{CB} = 10\text{ V}; f = 800\text{ MHz}; R_g = 60\ \Omega$) | NF | 4 | dB |