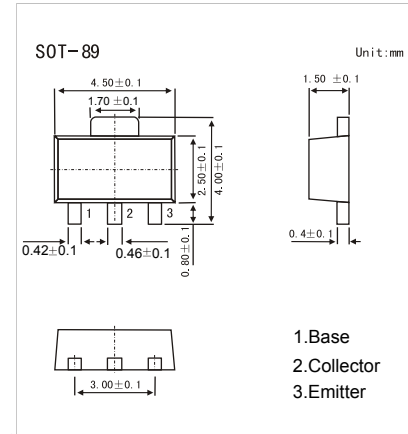


PNP Transistors

2SA1898-HF

■ Features

- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish

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

| Parameter | Symbol | Rating | Unit |
|--------------------------------|-----------|------------|------------------|
| Collector - Base Voltage | V_{CB0} | -15 | V |
| Collector - Emitter Voltage | V_{CE0} | -15 | |
| Emitter - Base Voltage | V_{EB0} | -5 | |
| Collector Current - Continuous | I_C | -3 | A |
| Collector Current - Pulse | I_{CP} | -5 | |
| Base Current | I_B | -0.6 | |
| Collector Power Dissipation | P_C | 1.3 | W |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature range | T_{stg} | -55 to 150 | |

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

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-----|-------|------|---------------|
| Collector- base breakdown voltage | V_{CB0} | $I_C = -100 \mu\text{A}$, $I_E = 0$ | -15 | | | V |
| Collector- emitter breakdown voltage | V_{CE0} | $I_C = -1 \text{ mA}$, $R_{BE} = \infty$ | -15 | | | |
| Emitter - base breakdown voltage | V_{EB0} | $I_E = -100 \mu\text{A}$, $I_C = 0$ | -5 | | | |
| Collector-base cut-off current | I_{CB0} | $V_{CB} = -12 \text{ V}$, $I_E = 0$ | | | -1 | μA |
| Emitter cut-off current | I_{EB0} | $V_{EB} = -3 \text{ V}$, $I_C = 0$ | | | -1 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -1.5 \text{ A}$, $I_B = -75 \text{ mA}$ | | -0.25 | -0.5 | V |
| Base - emitter saturation voltage | $V_{BE(sat)}$ | $I_C = -1.5 \text{ A}$, $I_B = -75 \text{ mA}$ | | -0.95 | -1.2 | |
| DC current gain | h_{FE} | $V_{CE} = -2 \text{ V}$, $I_C = -500 \text{ mA}$ | 100 | | 280 | |
| | | $V_{CE} = -2 \text{ V}$, $I_C = -3 \text{ A}$ | 50 | | | |
| Turn-ON Time | t_{on} | See specified Test Circuit. | | 30 | 60 | ns |
| Storage Time | t_{stg} | | | 100 | 200 | |
| Turn-OFF Time | t_{off} | | | 120 | 220 | |
| Collector output capacitance | C_{ob} | $V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$ | | 28 | | pF |
| Transition frequency | f_T | $V_{CE} = -2 \text{ V}$, $I_C = -0.3 \text{ A}$ | | 300 | | MHz |

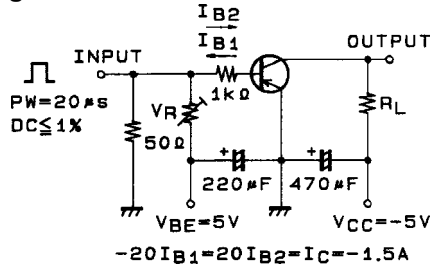
■ Classification of $h_{FE}(1)$

| Type | 2SA1898-R-HF | 2SA1898-S-HF |
|---------|------------------|------------------|
| Range | 100-200 | 140-280 |
| Marking | ANR _F | ANS _F |

PNP Transistors

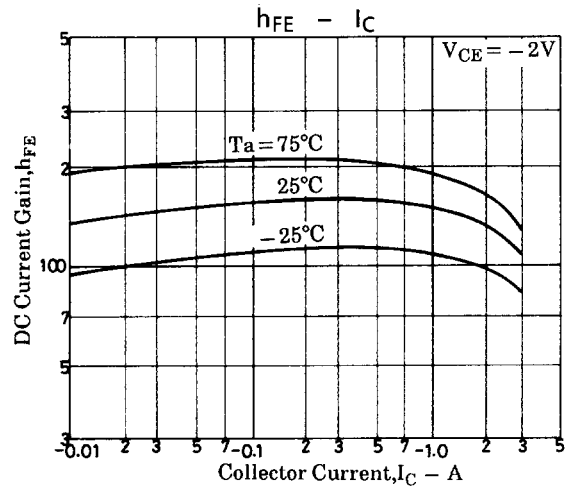
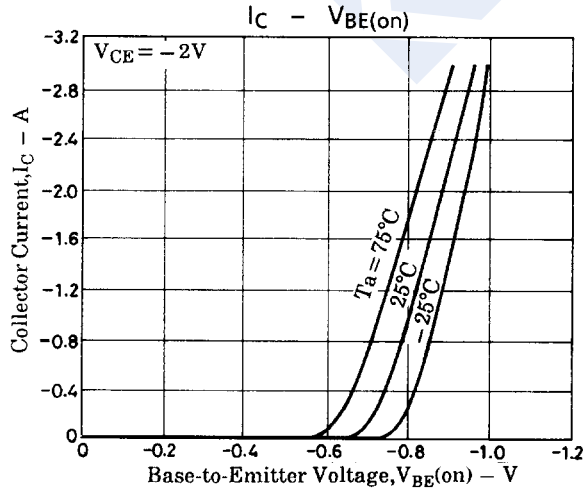
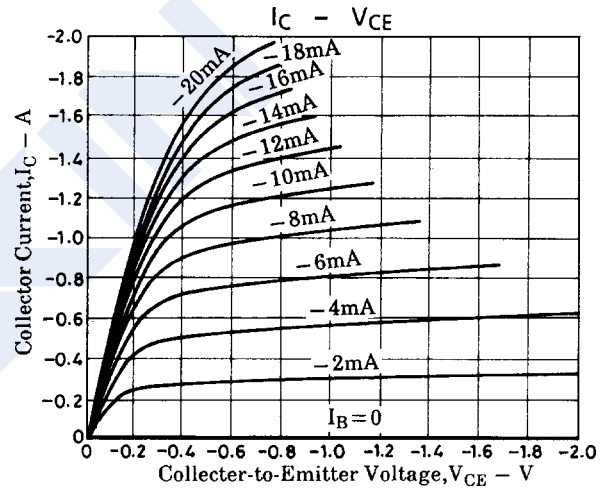
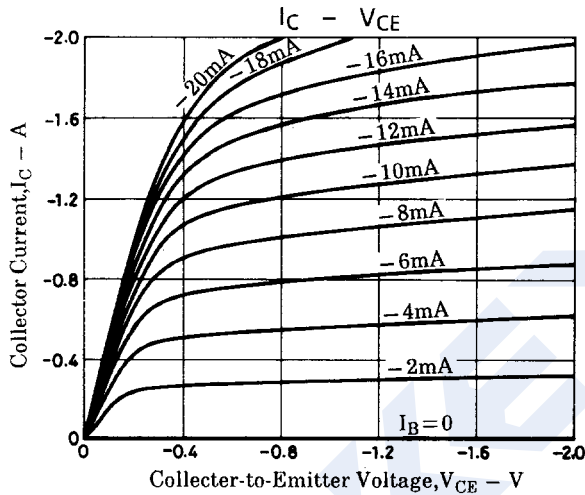
2SA1898-HF

Switching Time Test Circuit



Unit (resistance : Ω , capacitance : F)

■ Typical Characteristics



PNP Transistors

2SA1898-HF

■ Typical Characteristics

