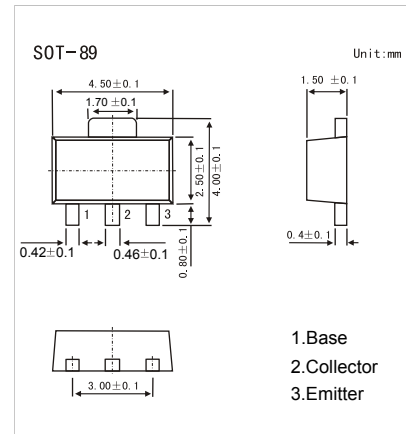


PNP Transistors

2SB800

■ Features

- High Collector to Emitter Voltage: $V_{CEO} > -80V$
- Complement to 2SD1001



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

| Parameter | Symbol | Rating | Unit |
|------------------------------------|-----------|------------|------------|
| Collector - Base Voltage | V_{CBO} | -80 | V |
| Collector - Emitter Voltage | V_{CEO} | -80 | |
| Emitter - Base Voltage | V_{EBO} | -5 | |
| Collector Current - Continuous | I_C | -300 | mA |
| Collector Current - Pulse (Note.1) | I_{CP} | -500 | |
| Collector Power Dissipation | P_C | 2 | W |
| Junction Temperature | T_J | 150 | $^\circ C$ |
| Storage Temperature range | T_{stg} | -55 to 150 | |

Note.1: $PW \leq 10ms$, Duty Cycle $\leq 50\%$

■ Electrical Characteristics $T_a = 25^\circ C$

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---------------|-----------------------------------|------|------|------|---------|
| Collector- base breakdown voltage | V_{CBO} | $I_C = -100 \mu A, I_E = 0$ | -80 | | | V |
| Collector- emitter breakdown voltage | V_{CEO} | $I_C = -1 mA, I_B = 0$ | -80 | | | |
| Emitter - base breakdown voltage | V_{EBO} | $I_E = -100 \mu A, I_C = 0$ | -5 | | | |
| Collector-base cut-off current | I_{CBO} | $V_{CB} = -80 V, I_E = 0$ | | | -0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -5V, I_C = 0$ | | | -0.1 | |
| Collector-emitter saturation voltage (Note.1) | $V_{CE(sat)}$ | $I_C = -300mA, I_B = -30mA$ | | -0.3 | -0.6 | V |
| Base - emitter saturation voltage (Note.1) | $V_{BE(sat)}$ | $I_C = -300mA, I_B = -30mA$ | | -0.9 | -1.2 | |
| Base - emitter voltage (Note.1) | V_{BE} | $V_{CE} = -6V, I_C = -10mA$ | -600 | -660 | -700 | mV |
| DC current gain (Note.1) | h_{FE} | $V_{CE} = -1V, I_C = -50mA$ | 90 | 200 | 400 | |
| | | $V_{CE} = -2V, I_C = -300mA$ | 30 | 80 | | |
| Collector output capacitance | C_{ob} | $V_{CB} = -6V, I_E = 0, f = 1MHz$ | | 13 | | pF |
| Transition frequency | f_T | $V_{CE} = -6V, I_E = 10mA$ | | 100 | | MHz |

Note.1: Pulse test : Pulse width $\leq 350\mu s$, Duty Cycle $\leq 2\%$.

■ Classification of $h_{FE}(1)$

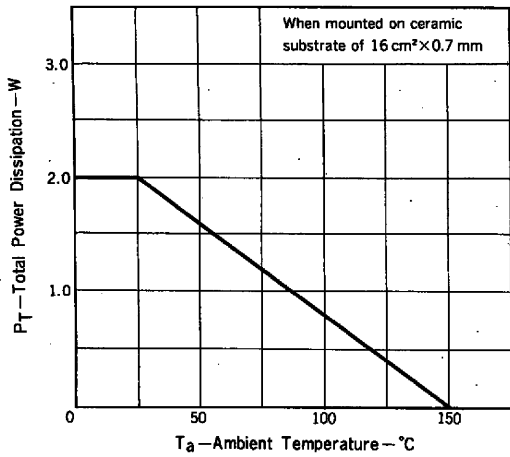
| Type | 2SB800-M | 2SB800-L | 2SB800-K |
|---------|----------|----------|----------|
| Range | 90-180 | 135-270 | 200-400 |
| Marking | FM | FL | FK |

PNP Transistors

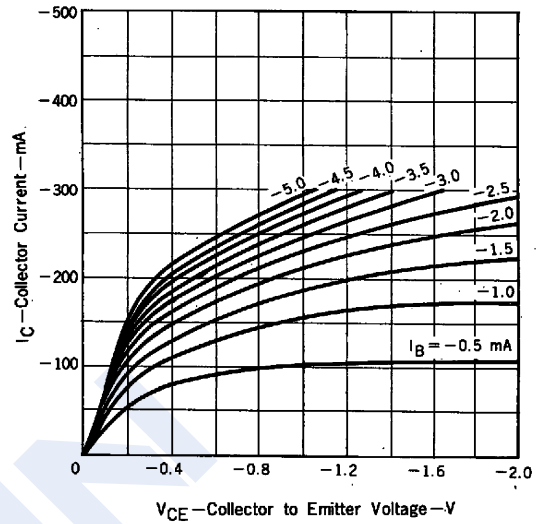
2SB800

Typical Characteristics

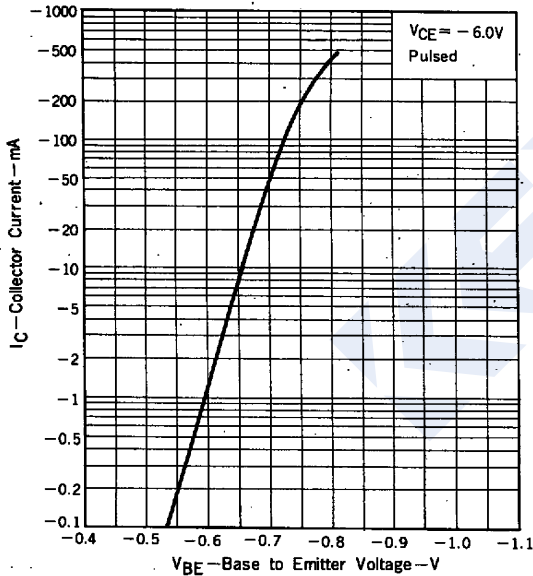
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



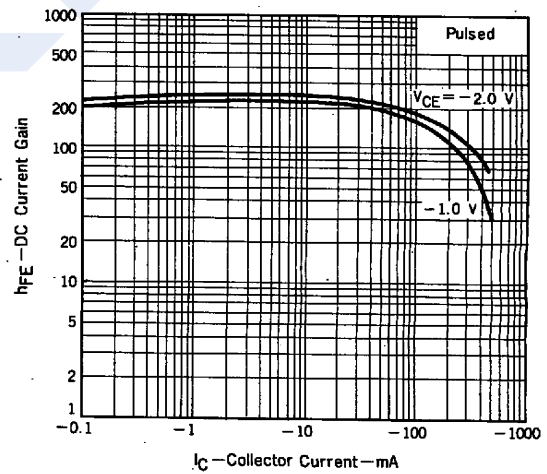
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



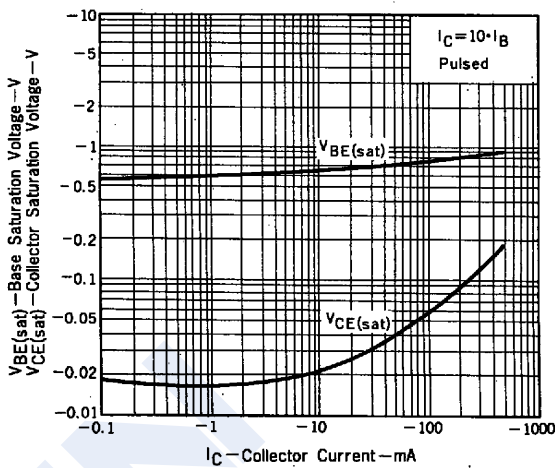
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



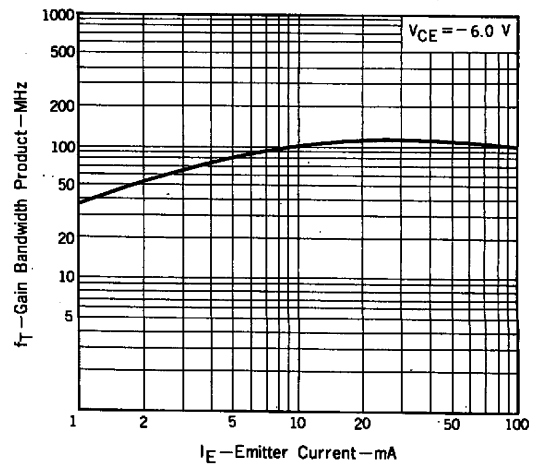
DC CURRENT GAIN vs. COLLECTOR CURRENT



BASE AND COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



PNP Transistors

2SB800

■ Typical Characteristics

