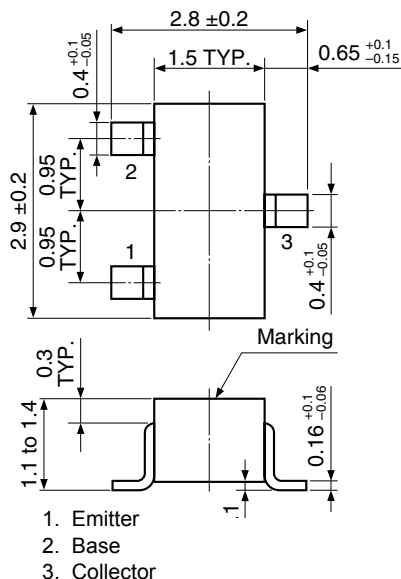


PNP SILICON EPITAXIAL TRANSISTOR
MINI MOLD

★ PACKAGE DRAWING
(Unit: mm)



FEATURES

- Complementary to 2SC1623
- High DC Current Gain: $h_{FE} = 200$ TYP. ($V_{CE} = -6.0$ V, $I_C = -1.0$ mA)
- High Voltage: $V_{CEO} = -50$ V

QUALITY GRADE

Standard

Please refer to "Quality Grades on NEC Semiconductor Devices" (Document No. C11531E) published by NEC Electronics Corporation to know the specification of quality grade on the devices and its recommended applications.

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

| | | | |
|------------------------------|-----------|-------------|------------------|
| Collector to Base Voltage | V_{CB0} | -60 | V |
| Collector to Emitter Voltage | V_{CEO} | -50 | V |
| Emitter to Base Voltage | V_{EBO} | -5.0 | V |
| Collector Current (DC) | I_C | -100 | mA |
| Total Power Dissipation | P_T | 200 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

| CHARACTERISTIC | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|------------------------------|---------------|-------|-------|-------|---------------|--|
| Collector Cutoff Current | I_{CBO} | | | -0.1 | μA | $V_{CB} = -60$ V, $I_E = 0$ A |
| Emitter Cutoff Current | I_{EBO} | | | -0.1 | μA | $V_{EB} = -5.0$ V, $I_C = 0$ A |
| DC Current Gain | h_{FE} | 90 | 200 | 600 | | $V_{CE} = -6.0$ V, $I_C = -1.0$ mA ^{Note} |
| Collector Saturation Voltage | $V_{CE(sat)}$ | | -0.18 | -0.3 | V | $I_C = -100$ mA, $I_B = -10$ mA |
| Base to Emitter Voltage | V_{BE} | -0.58 | -0.62 | -0.68 | V | $V_{CE} = 6.0$ V, $I_C = -1.0$ mA |
| Gain Bandwidth Product | f_T | | 180 | | MHz | $V_{CE} = -6.0$ V, $I_E = 10$ mA |
| Output Capacitance | C_{ob} | | 4.5 | | pF | $V_{CE} = -10$ V, $I_E = 0$ A, $f = 1.0$ MHz |

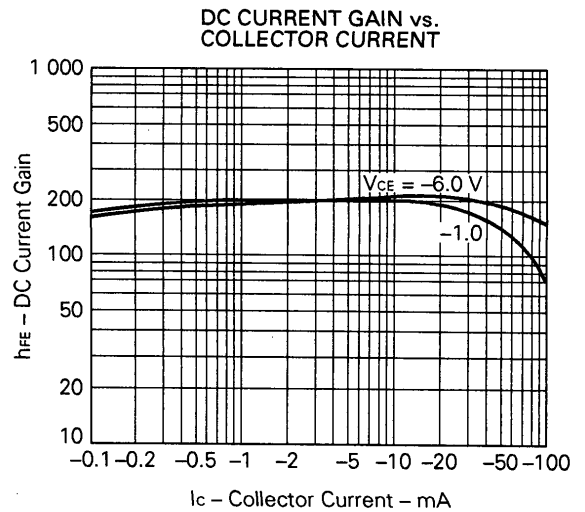
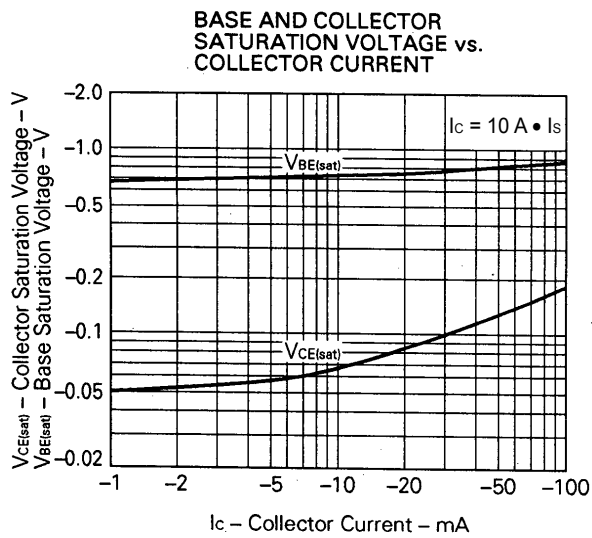
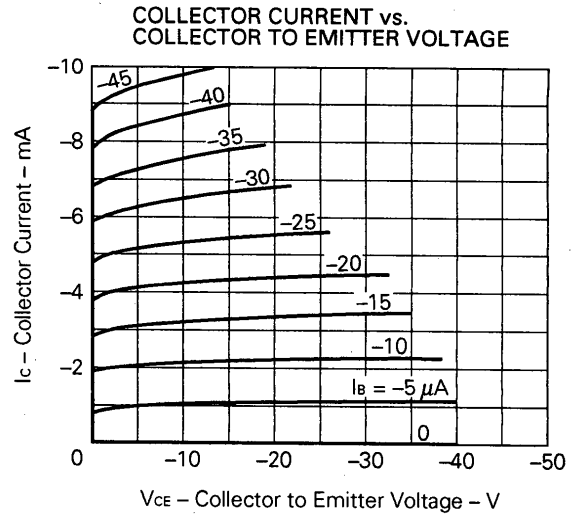
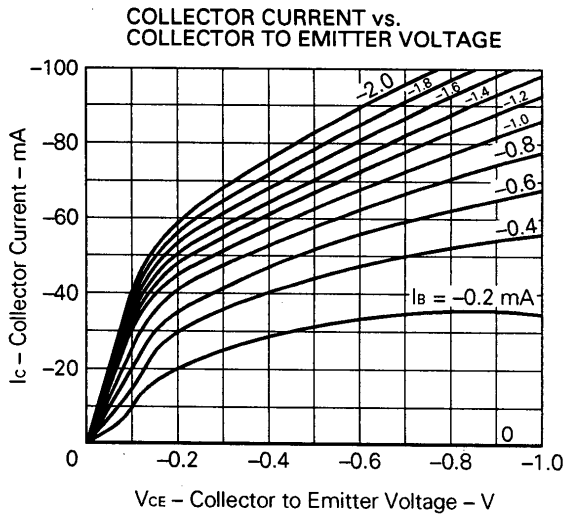
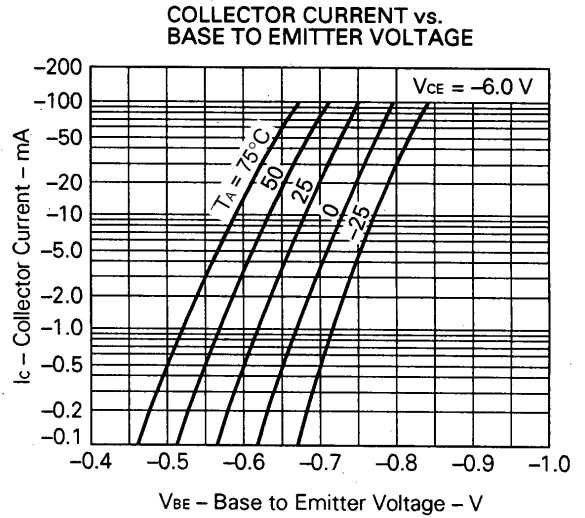
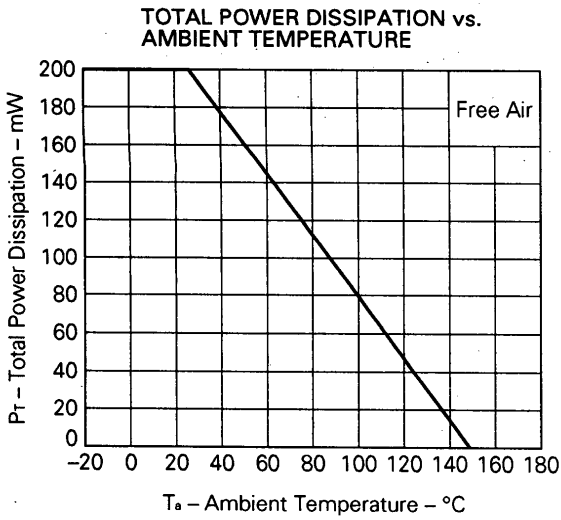
Note Pulsed: $PW \leq 350 \mu\text{s}$, Duty Cycle $\leq 2\%$

h_{FE} CLASSIFICATION

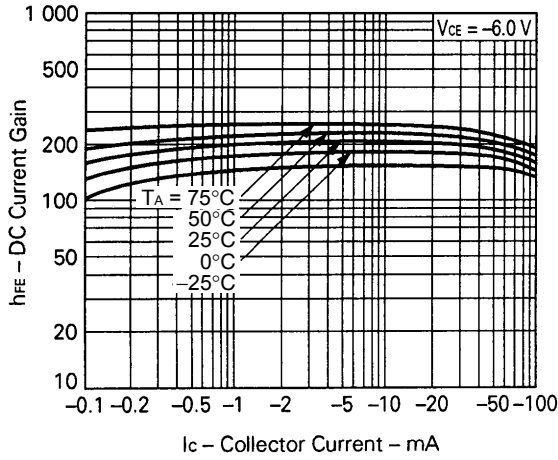
| Marking | M4 | M5 | M6 | M7 |
|----------|-----------|------------|------------|------------|
| h_{FE} | 90 to 180 | 135 to 270 | 200 to 400 | 300 to 600 |

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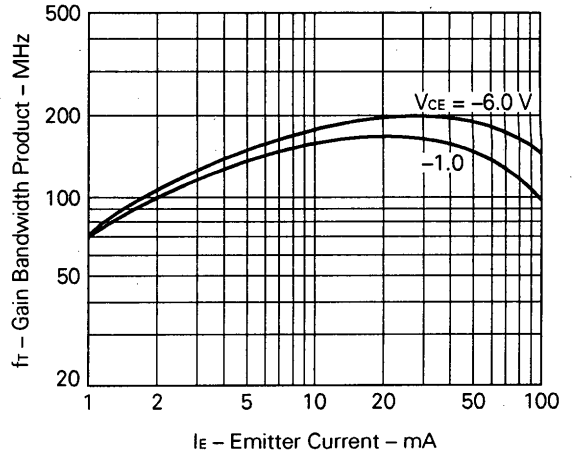
TYPICAL CHARACTERISTICS (T_A = 25°C)



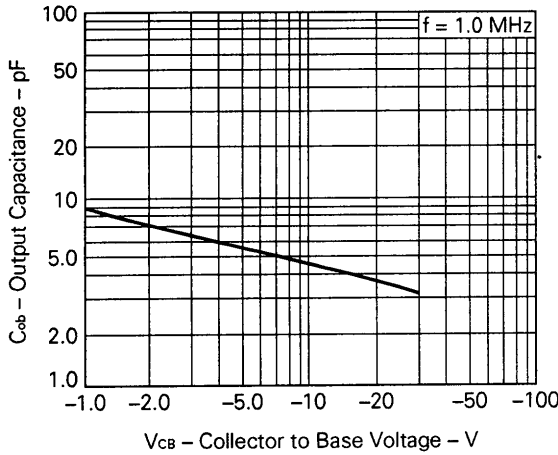
DC CURRENT GAIN vs. COLLECTOR CURRENT



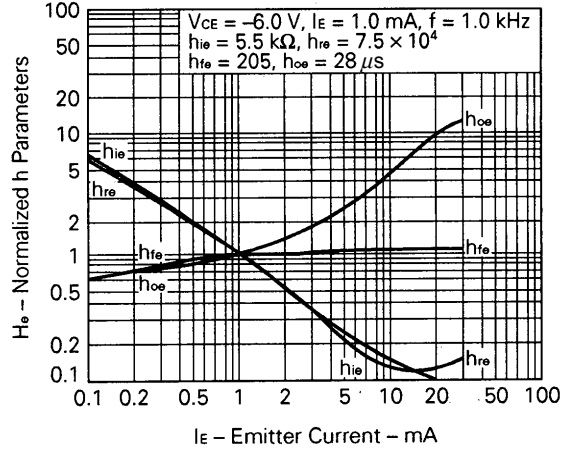
GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



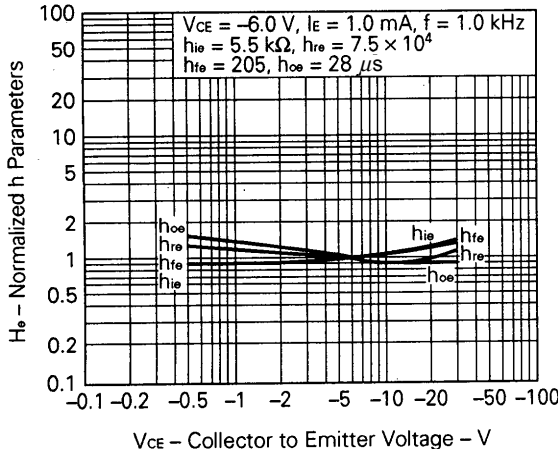
OUTPUT CAPACITANCE vs. REVERSE VOLTAGE



NORMALIZED h PARAMETER vs. EMITTER CURRENT



NORMALIZED h PARAMETER vs. COLLECTOR TO EMITTER VOLTAGE



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