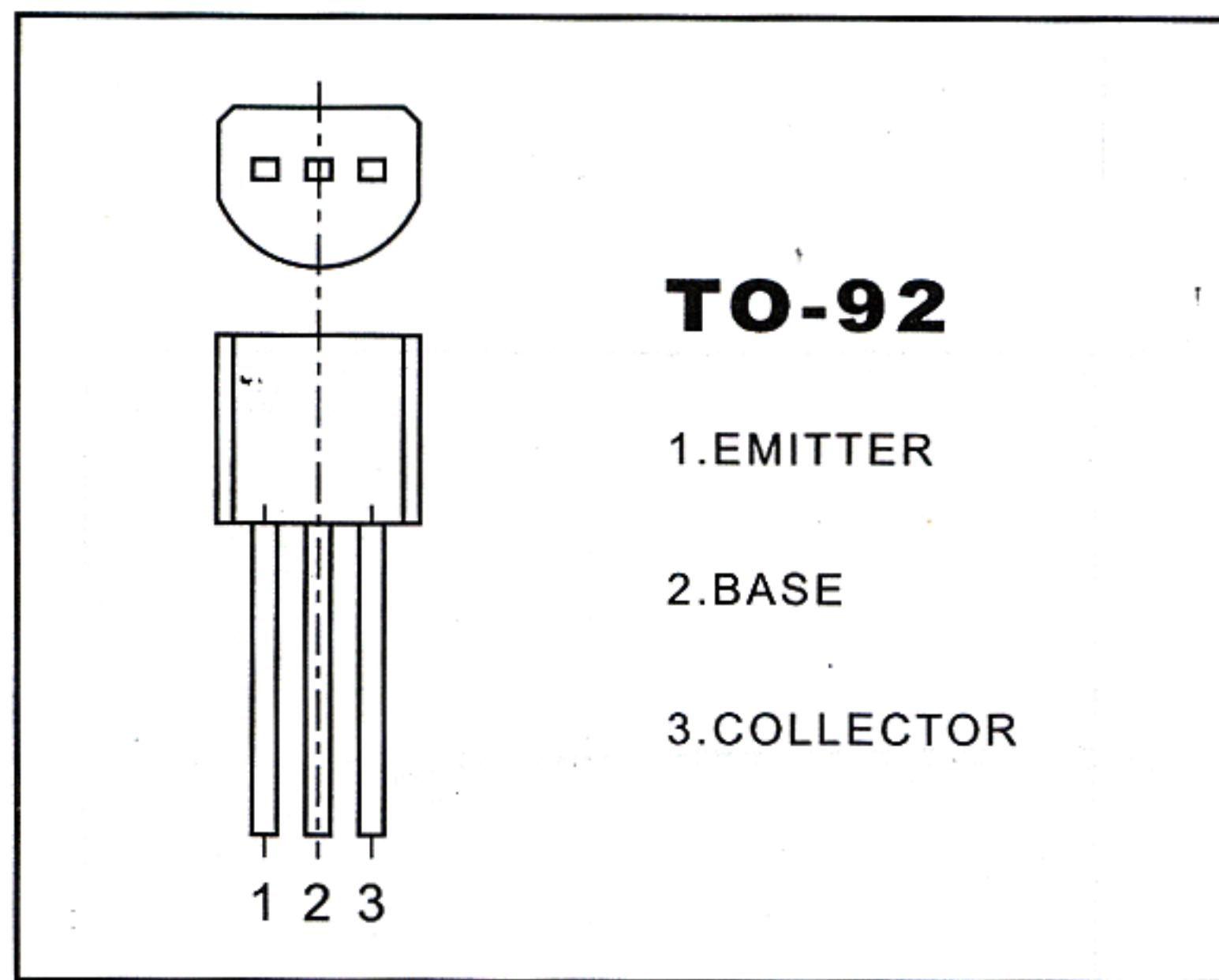


S9012 TRANSISTOR(PNP)



FEATURES

Power dissipation

P_{CM} : 0.625W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : -0.5 A

Collector-base voltage

$V_{(BR)CBO}$: -40 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

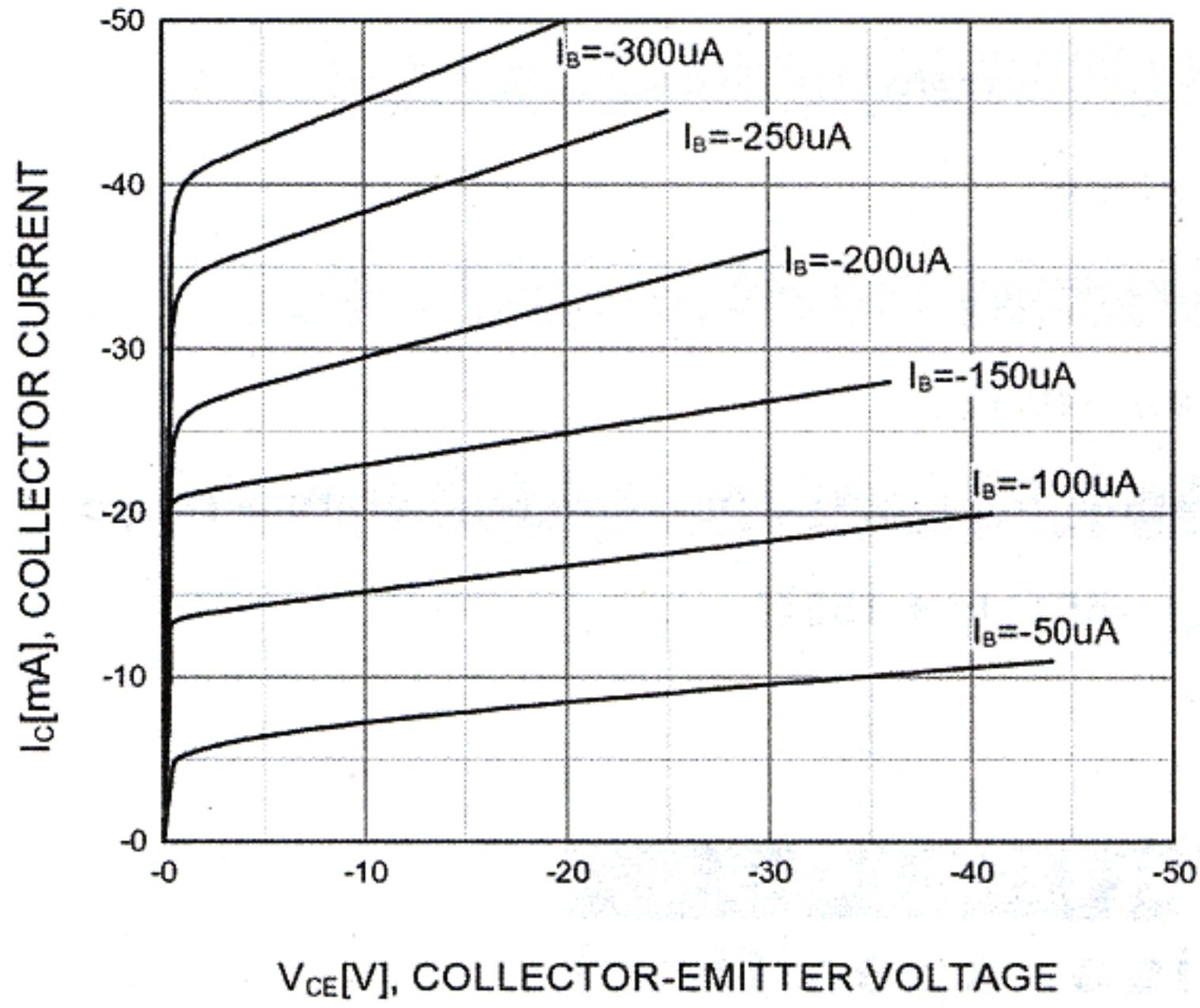
ELECTRICAL CHARACTERISTICS

($T_{amb}=25^{\circ}C$ unless otherwise specified)

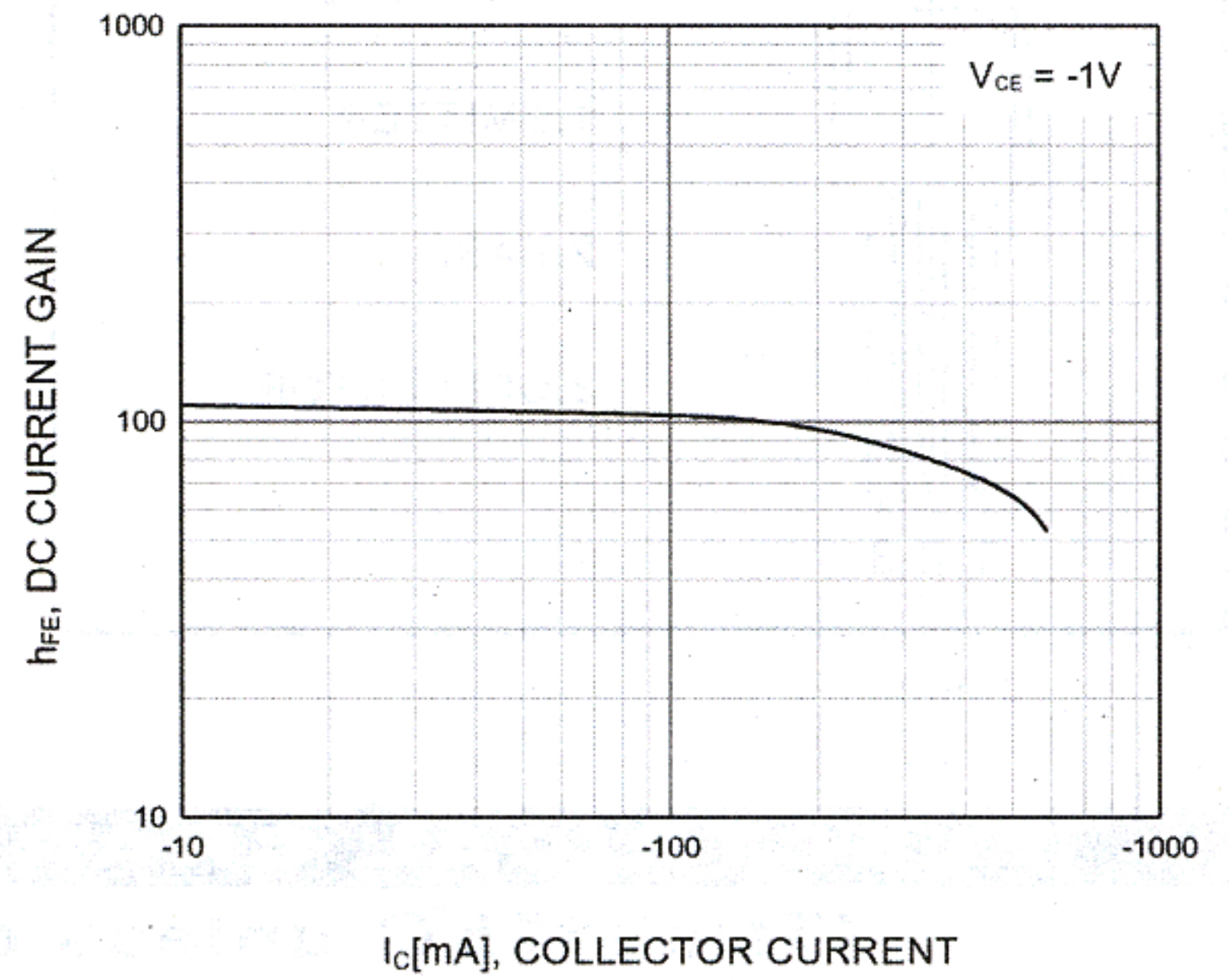
| Parameter | Symbol | Test conditions | MIN | MAX | UNIT |
|--------------------------------------|---------------|---|-----|------|---------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -100 \mu A, I_E = 0$ | -40 | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = -0.1 mA, I_B = 0$ | -25 | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = -100 \mu A, I_C = 0$ | -5 | | V |
| Collector cut-off current | I_{CBO} | $V_{CB} = -40 V, I_E = 0$ | | -0.1 | μA |
| Collector cut-off current | I_{CEO} | $V_{CE} = -20 V, I_B = 0$ | | -0.2 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -5 V, I_C = 0$ | | -0.1 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE} = -1 V, I_C = -50 mA$ | 64 | 300 | |
| | $h_{FE(2)}$ | $V_{CE} = -1 V, I_C = -500 mA$ | 40 | | |
| Collector-emitter saturation voltage | V_{CEsat} | $I_C = -500 mA, I_B = -50 mA$ | | -0.6 | V |
| Base-emitter saturation voltage | V_{BEsat} | $I_C = -500 mA, I_B = -50 mA$ | | -1.2 | V |
| Base-emitter voltage | V_{EB} | $I_E = -100 mA$ | | -1.4 | V |
| Transition frequency | f_T | $V_{CE} = -6 V, I_C = -20 mA$ $f = 30 MHz$ | 150 | | MHz |

CLASSIFICATION OF $h_{FE(1)}$

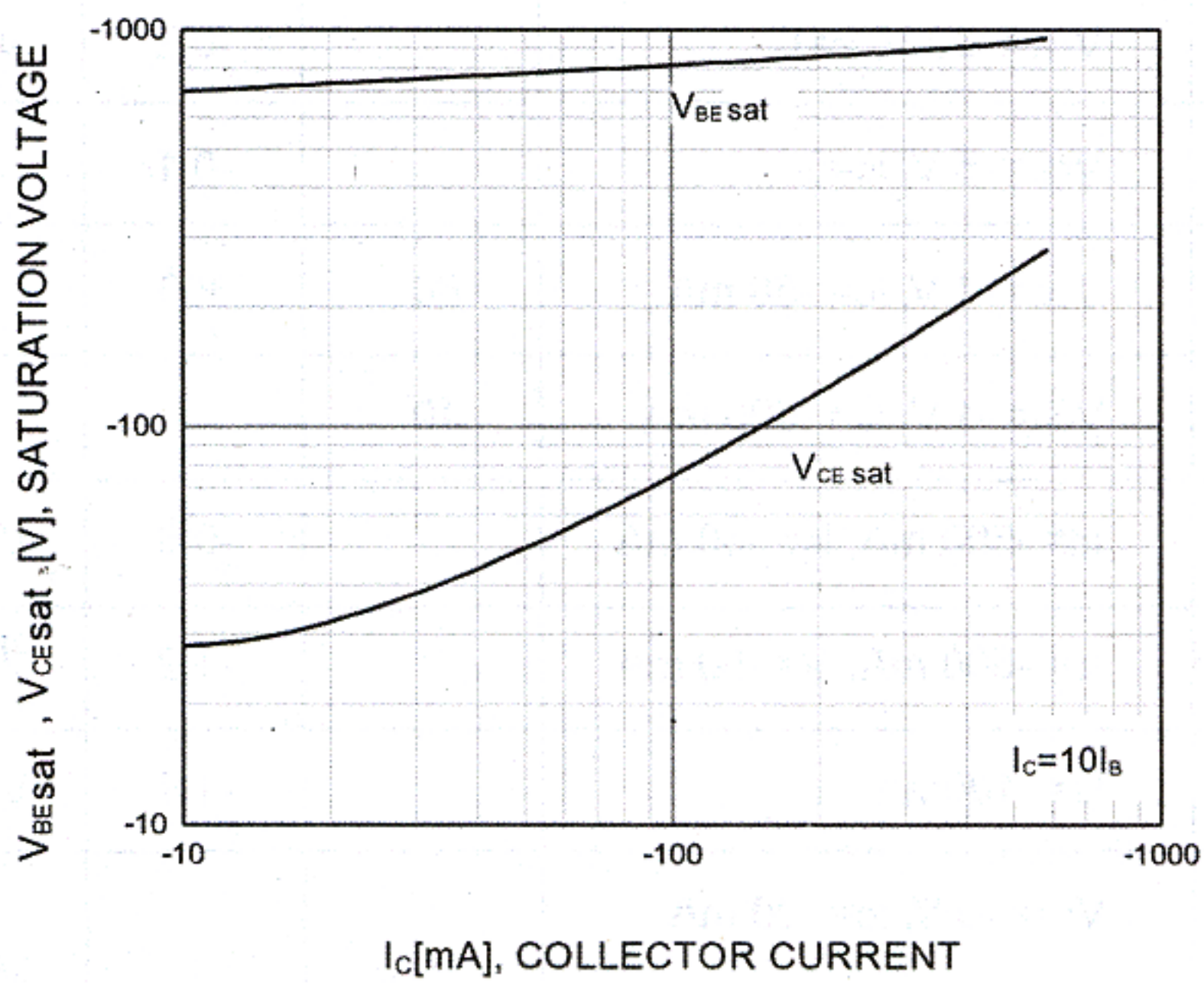
| Rank | D | E | F | G | H | I |
|-------|-------|--------|--------|---------|---------|---------|
| Range | 64-91 | 78-112 | 96-135 | 112-166 | 144-202 | 190-300 |



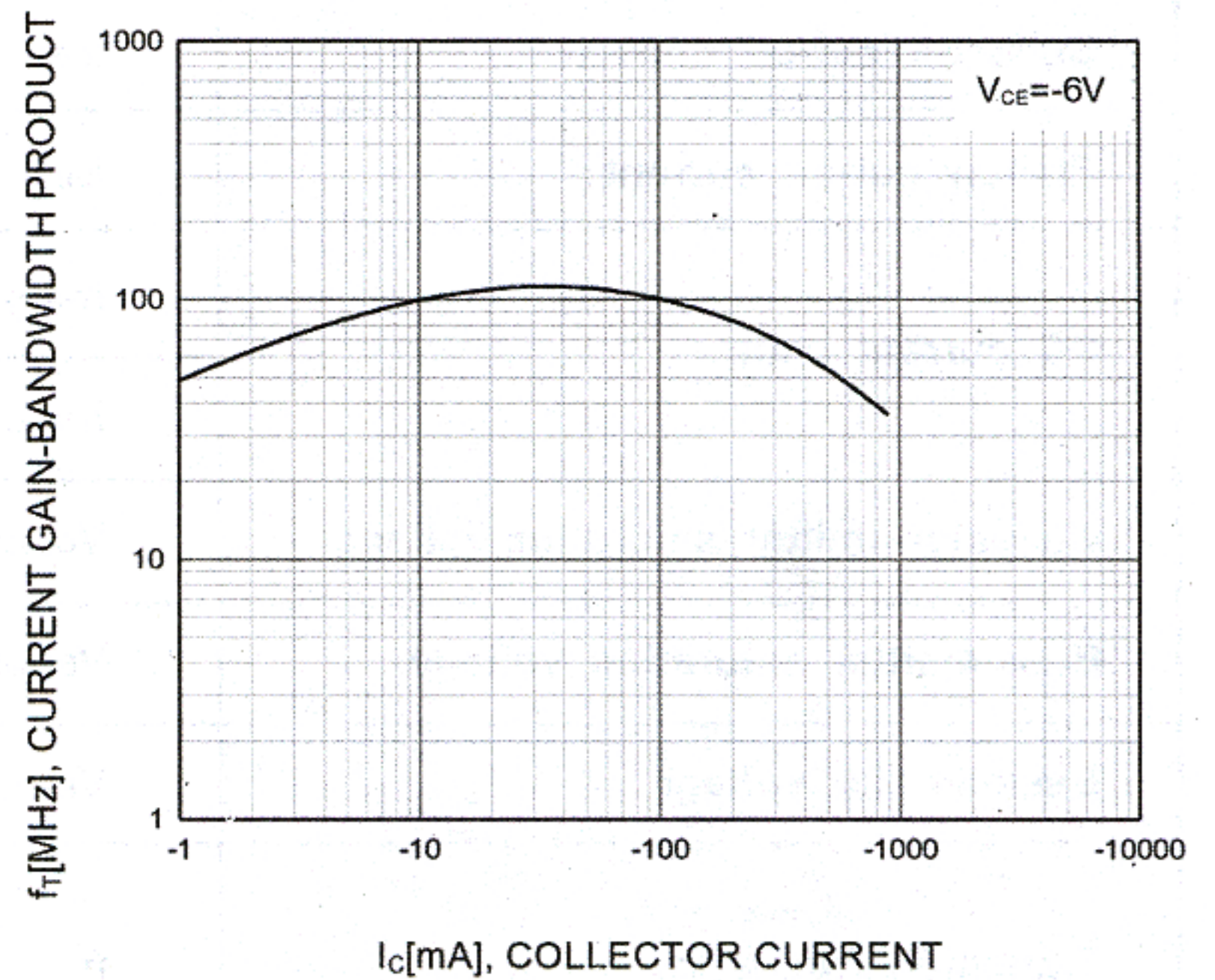
Static Characteristic



DC current Gain



**Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage**



Current Gain Bandwidth Product