

Transistors

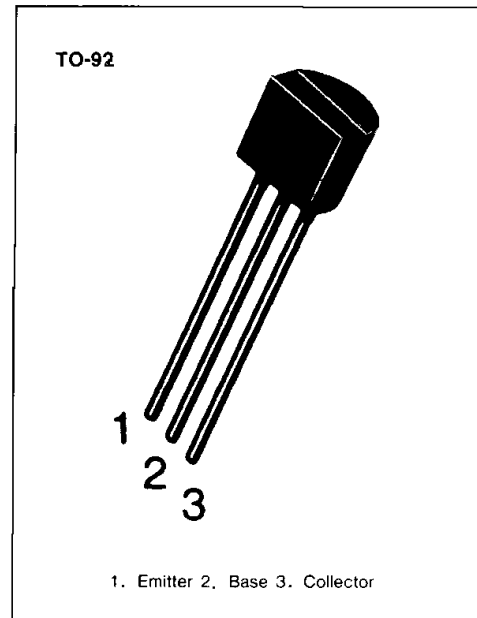
C8050

2W OUTPUT AMPLIFIER OF PORTABLE RADIO'S IN CLASS B PUSH-PULL OPERATION.

- Complimentary to SS8550
- Collector Current $I_c = 1.5A$
- Collector Dissipation $P_c = 2W$ ($T_c = 25^\circ C$)

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ C$)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|-----------|---------|------------|
| Collector-Base Voltage | V_{CBO} | 40 | V |
| Collector-Emitter Voltage | V_{CEO} | 25 | V |
| Emitter-Base Voltage | V_{EBO} | 6 | V |
| Collector Current | I_c | 1.5 | A |
| Collector Dissipation | P_c | 1 | W |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | -65~150 | $^\circ C$ |



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

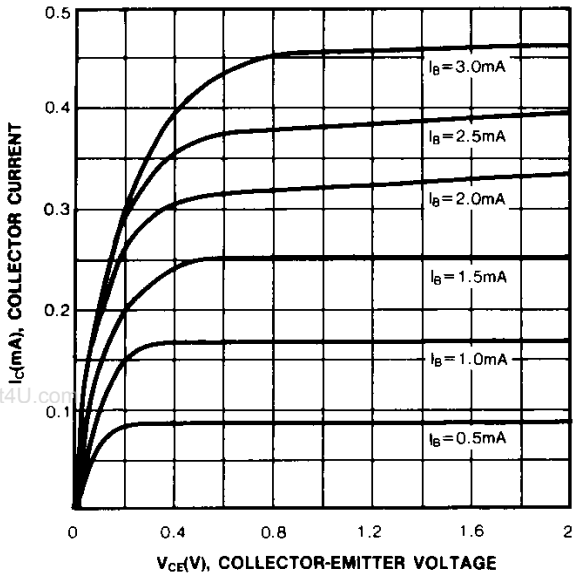
| Characteristic | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---------------------------------------|-----|------|-----|------|
| Collector-Base Breakdown Voltage | BV_{CBO} | $I_c = 100\mu A, I_E = 0$ | 40 | | | V |
| Collector-Emitter Breakdown Voltage | BV_{CEO} | $I_c = 2mA, I_B = 0$ | 25 | | | V |
| Emitter-Base Breakdown Voltage | BV_{EBO} | $I_E = 100\mu A, I_C = 0$ | 6 | | | V |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = 35V, I_E = 0$ | | | 100 | nA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = 6V, I_C = 0$ | | | 100 | nA |
| DC Current Gain | h_{FE1} | $V_{CE} = 1V, I_c = 5mA$ | 45 | 135 | | |
| | h_{FE2} | $V_{CE} = 1V, I_c = 100mA$ | 85 | 160 | 300 | |
| | h_{FE3} | $V_{CE} = 1V, I_c = 800mA$ | 40 | 110 | | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_c = 800mA, I_B = 80mA$ | | 0.28 | 0.5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_c = 800mA, I_B = 80mA$ | | 0.98 | 1.2 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = 1V, I_c = 10mA$ | | 0.66 | 1 | V |
| Output Capacitance | C_{ob} | $V_{CB} = 10V, I_E = 0$ $f = 1MHz$ | | 9.0 | | pF |
| Current Gain-Bandwidth Product | f_T | $V_{CE} = 10V, I_c = 50mA$ | 100 | 190 | | MHz |

h_{FE} (2) CLASSIFICATION

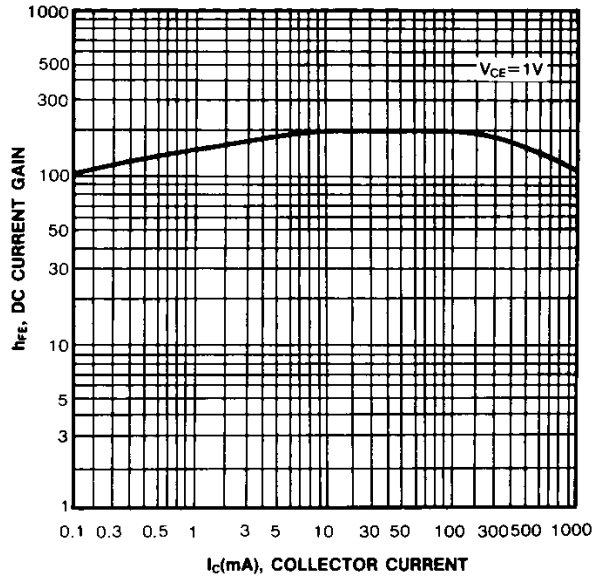
| Classification | B | C | D |
|----------------|--------|---------|---------|
| h_{FE} (2) | 85-160 | 120-200 | 160-300 |



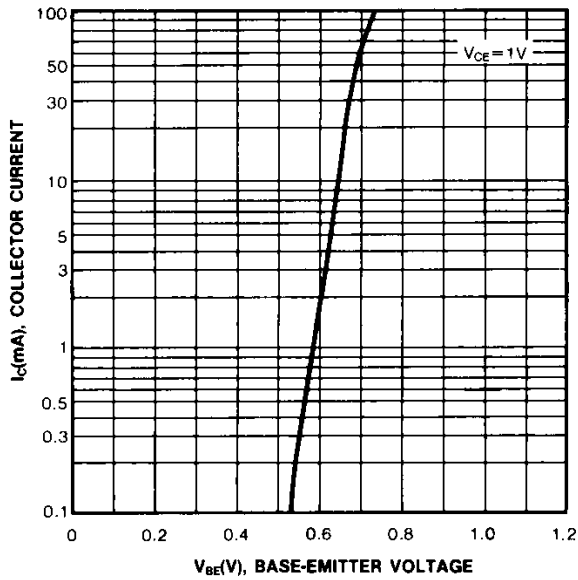
STATIC CHARACTERISTIC



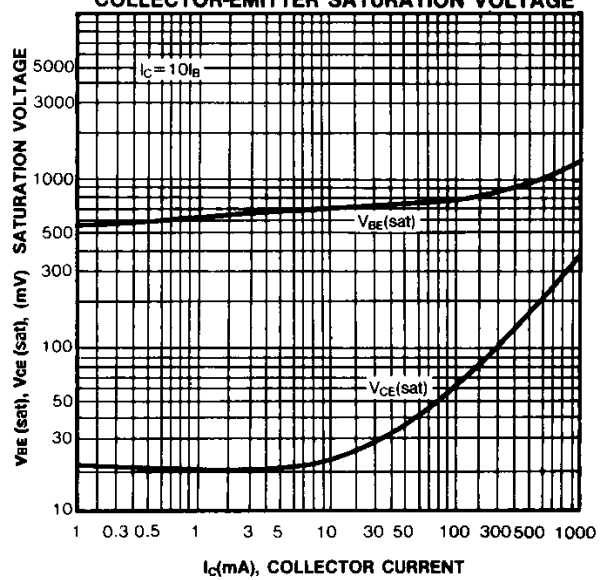
DC CURRENT GAIN



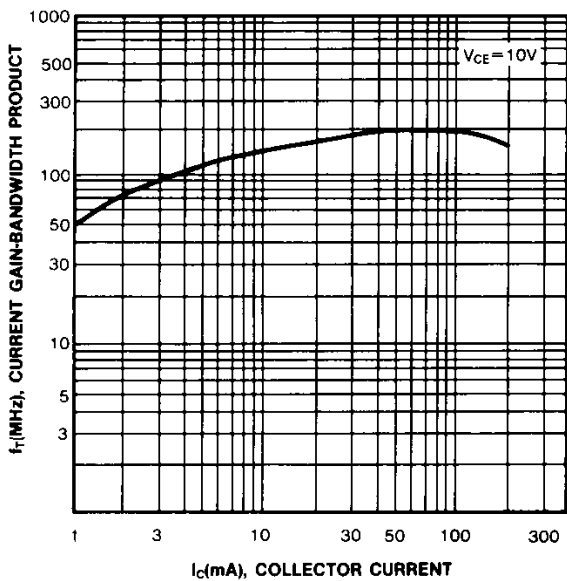
BASE-EMITTER ON VOLTAGE



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR OUTPUT CAPACITANCE

