



S8550

PNP SILICON TRANSISTOR

LOW VOLTAGE HIGH CURRENT SMALL SIGNAL PNP TRANSISTOR

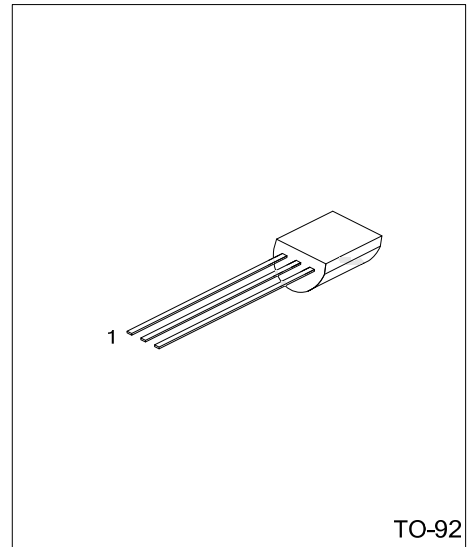
DESCRIPTION

The UTC **S8550** is a low voltage high current small signal PNP transistor, designed for Class B push-pull audio amplifier and general purpose applications.

FEATURES

- * Collector current up to 700mA
- * Collector-Emitter voltage up to 20 V
- * Complementary to UTC S8050
- * Halogen Free

ORDERING INFORMATION



Lead-free: S8550L
Halogen-free: S8550G

| Ordering Number | | | Package | Pin Assignment | | | Packing |
|-----------------|----------------|----------------|---------|----------------|---|---|----------|
| Normal | Lead Free | Halogen-Free | | 1 | 2 | 3 | |
| S8550-x-T92-B | S8550L-x-T92-B | S8550G-x-T92-B | TO-92 | E | B | C | Tape Box |
| S8550-x-T92-K | S8550L-x-T92-K | S8550G-x-T92-K | TO-92 | E | B | C | Bulk |

| | | |
|-----------------------|--|---|
| <p>S8550L-x-T92-R</p> | <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Plating</p> | <p>(1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) x: refer to Classification of h_{FE2} (4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p> |
|-----------------------|--|---|

■ ABSOLUTE MAXIMUM RATING (Ta =25°C, unless otherwise specified)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|----------------------------------|-----------|------------|------|
| Collector-Base Voltage | V_{CBO} | -30 | V |
| Collector-Emitter Voltage | V_{CEO} | -20 | V |
| Emitter-Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -700 | mA |
| Collector Dissipation (Ta =25°C) | P_C | 1 | W |
| Junction Temperature | T_J | 150 | °C |
| Storage Temperature | T_{STG} | -65 ~ +150 | °C |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

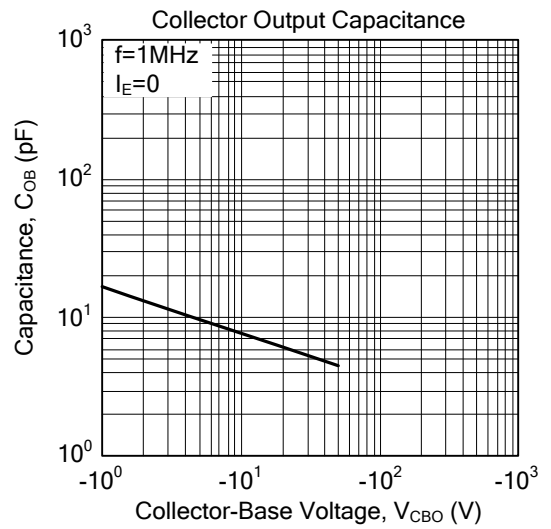
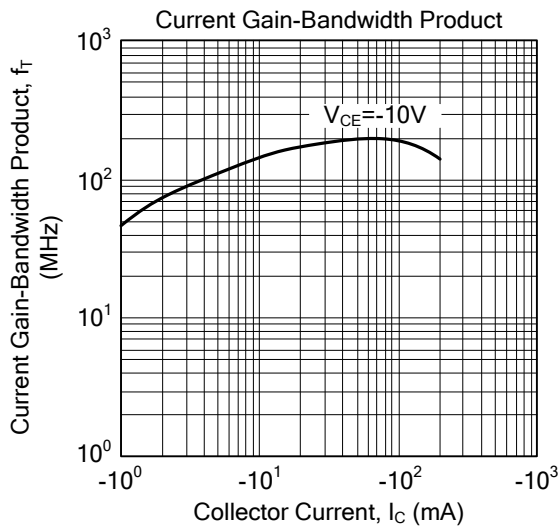
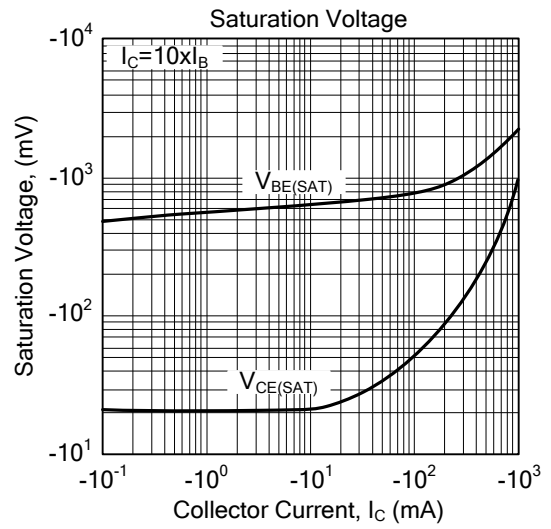
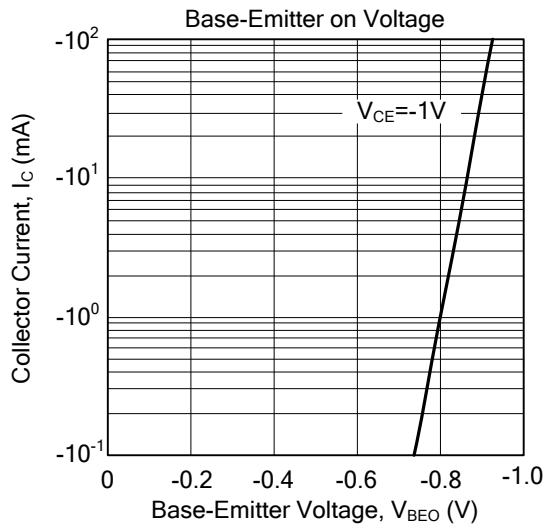
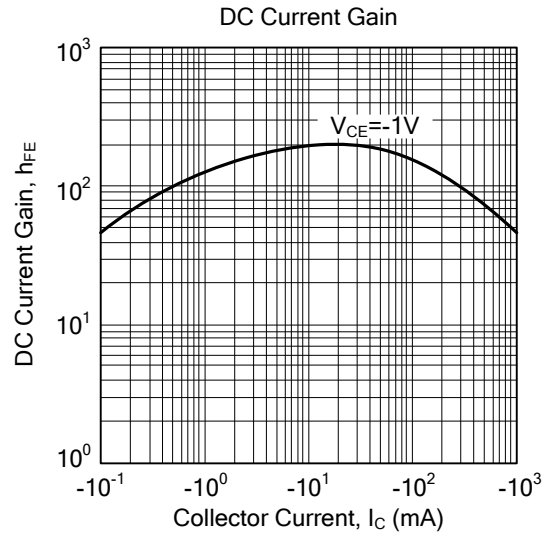
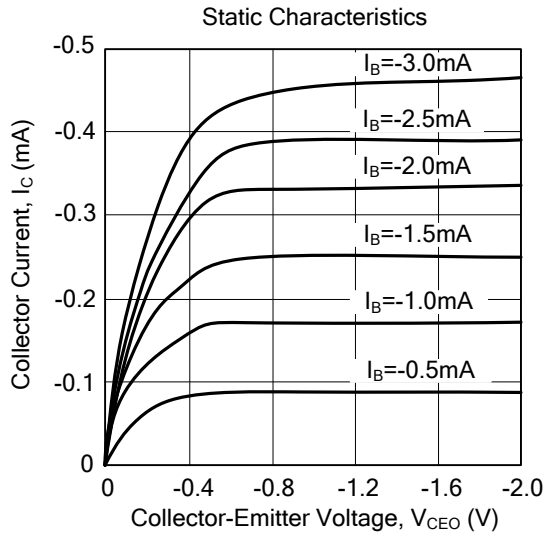
■ ELECTRICAL CHARACTERISTICS (Ta = 25°C unless otherwise specified.)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|-----------------------------------|-----|-----|------|---------|
| Collector-Base Breakdown Voltage | BV_{CBO} | $I_C = -100\mu A, I_E = 0$ | -30 | | | V |
| Collector-Emitter Breakdown Voltage | BV_{CEO} | $I_C = -1mA, I_B = 0$ | -20 | | | V |
| Emitter-Base Breakdown Voltage | BV_{EBO} | $I_E = -100\mu A, I_C = 0$ | -5 | | | V |
| Collector Cut-Off Current | I_{CBO} | $V_{CB} = -30V, I_E = 0$ | | | -1 | μA |
| Emitter Cut-Off Current | I_{EBO} | $V_{EB} = -5V, I_C = 0$ | | | -100 | nA |
| DC Current Gain | h_{FE1} | $V_{CE} = -1V, I_C = -1mA$ | 100 | | | |
| | h_{FE2} | $V_{CE} = -1V, I_C = -150mA$ | 120 | 110 | 400 | |
| | h_{FE3} | $V_{CE} = -1V, I_C = -500mA$ | 40 | | | |
| Collector-Emitter Saturation Voltage | $V_{CE(SAT)}$ | $I_C = -500mA, I_B = -50mA$ | | | -0.5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(SAT)}$ | $I_C = 500mA, I_B = -50mA$ | | | -1.2 | V |
| Base-Emitter Saturation Voltage | V_{BE} | $V_{CE} = -1V, I_C = -10mA$ | | | -1.0 | V |
| Current Gain Bandwidth Product | f_T | $V_{CE} = -10V, I_C = -50mA$ | 100 | | | MHz |
| Output Capacitance | C_{ob} | $V_{CB} = 10V, I_E = 0, f = 1MHz$ | | 9.0 | | pF |

■ CLASSIFICATION OF h_{FE2}

| RANK | C | D | E |
|-------|---------|---------|---------|
| RANGE | 120-200 | 160-300 | 280-400 |

■ TYPICAL CHARACTERISTICS



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