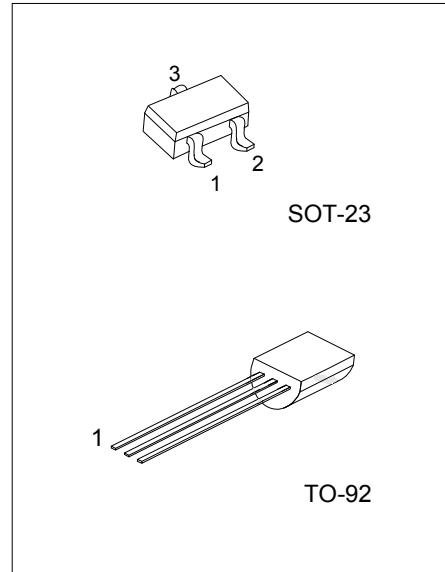




8550S

PNP SILICON TRANSISTOR

LOW VOLTAGE HIGH
CURRENT SMALL SIGNAL
PNP TRANSISTOR



■ DESCRIPTION

The UTC **8550S** 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
- *Complimentary to 8050S

■ ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | Packing |
|-----------------|----------------|---------|----------------|---|---|-----------|
| Lead Free | Halogen-Free | | 1 | 2 | 3 | |
| 8550SL-x-AE3-R | 8550SG-x-AE3-R | SOT-23 | B | E | C | Tape Reel |
| 8550SL-x-T92-B | 8550SG-x-T92-B | TO-92 | E | C | B | Tape Box |
| 8550SL-x-T92-K | 8550SG-x-T92-K | TO-92 | E | C | B | Bulk |

Note: Pin Assignment: B: Base E: Emitter C: Collector

| | |
|-----------------------|---|
| <p>8550SG-x-AE3-R</p> | <p>(1) R: Tape Reel, B: Tape Box, K: Bulk</p> <p>(2) AE3: SOT-23, T92: TO-92</p> <p>(3) x: refer to Classification of h_{FE2}</p> <p>(4) G: Halogen Free and Lead Free, L: Lead Free</p> |
|-----------------------|---|

■ MARKING

| SOT-23 | TO-92 |
|--------|-------|
| | |

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

| PARAMETER | | SYMBOL | RATING | UNITS |
|---|--------|-----------|------------|------------------|
| Collector-Base Voltage | | V_{CB0} | -30 | V |
| Collector-Emitter Voltage | | V_{CEO} | -20 | V |
| Emitter-Base Voltage | | V_{EBO} | -5 | V |
| Collector Current | | I_C | -700 | mA |
| Collector Dissipation($T_a=25^\circ\text{C}$) | SOT-23 | P_C | 350 | mW |
| | TO-92 | | 1 | W |
| Junction Temperature | | T_J | +150 | $^\circ\text{C}$ |
| Storage Temperature | | T_{STG} | -40 ~ +150 | $^\circ\text{C}$ |

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.

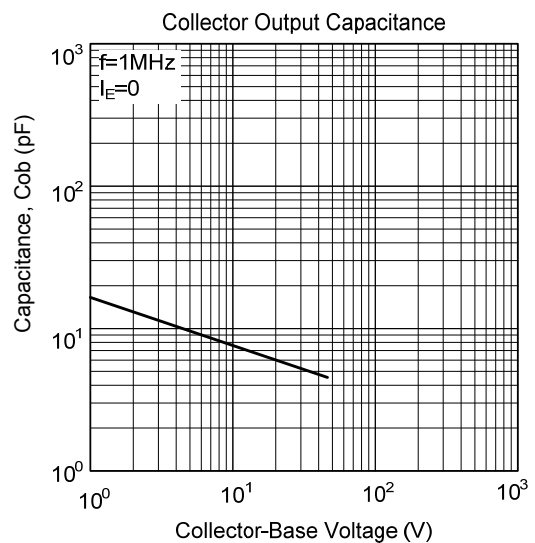
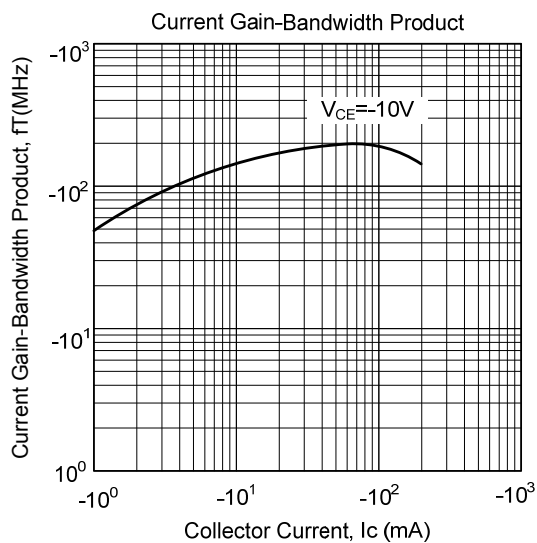
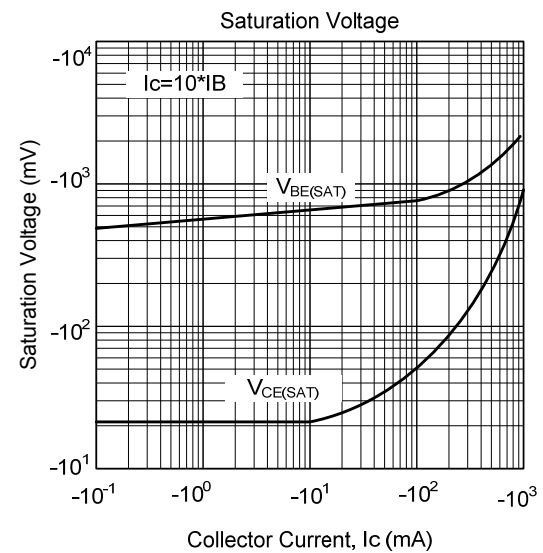
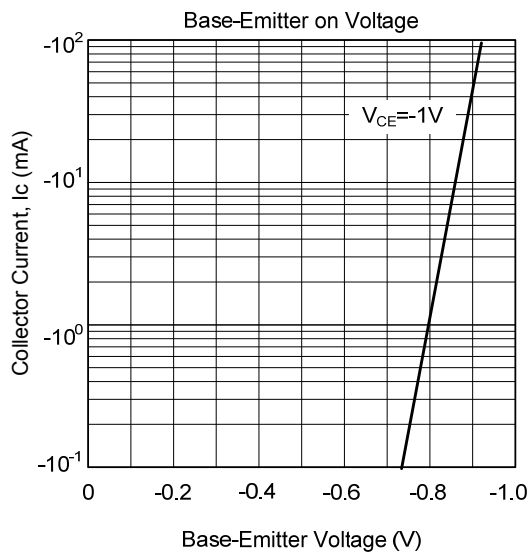
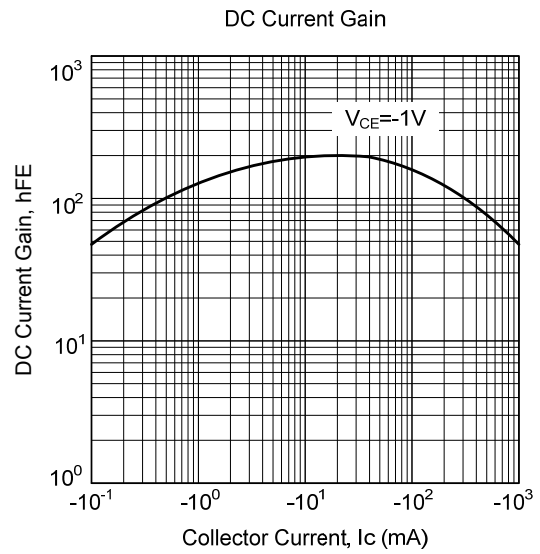
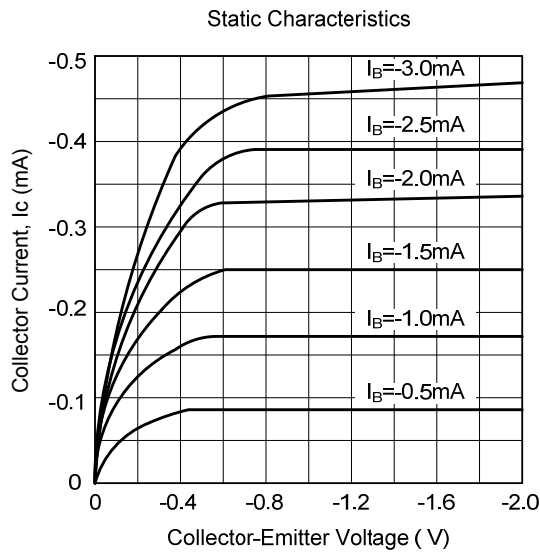
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|--|-----|-----|------|---------------|
| Collector-Base Breakdown Voltage | BV_{CB0} | $I_C=-100\mu\text{A}, I_E=0$ | -30 | | | V |
| Collector-Emitter Breakdown Voltage | BV_{CEO} | $I_C=-1\text{mA}, I_B=0$ | -20 | | | V |
| Emitter-Base Breakdown Voltage | BV_{EBO} | $I_E=-100\mu\text{A}, I_C=0$ | -5 | | | V |
| Collector Cut-off Current | I_{CB0} | $V_{CB}=-30\text{V}, I_E=0$ | | | -1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=-5\text{V}, I_C=0$ | | | -100 | nA |
| DC Current Gain | h_{FE1} | $V_{CE}=-1\text{V}, I_C=-1\text{mA}$ | 100 | | | |
| | h_{FE2} | $V_{CE}=-1\text{V}, I_C=-150\text{mA}$ | 120 | | 400 | |
| | h_{FE3} | $V_{CE}=-1\text{V}, I_C=-500\text{mA}$ | 40 | | | |
| Collector-Emitter Saturation Voltage | $V_{CE(SAT)}$ | $I_C=-500\text{mA}, I_B=-50\text{mA}$ | | | -0.5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(SAT)}$ | $I_C=-500\text{mA}, I_B=-50\text{mA}$ | | | -1.2 | V |
| Base-Emitter Saturation Voltage | V_{BE} | $V_{CE}=-1\text{V}, I_C=-10\text{mA}$ | | | -1.0 | V |
| Current Gain Bandwidth Product | f_T | $V_{CE}=-10\text{V}, I_C=-50\text{mA}$ | 100 | | | MHz |
| Output Capacitance | C_{ob} | $V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$ | | 9.0 | | pF |

■ CLASSIFICATION OF h_{FE2}

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

TYPICAL CHARACTERISTICS



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