

UTC HE8550 PNP EPITAXIAL SILIC ON TRANSISTOR

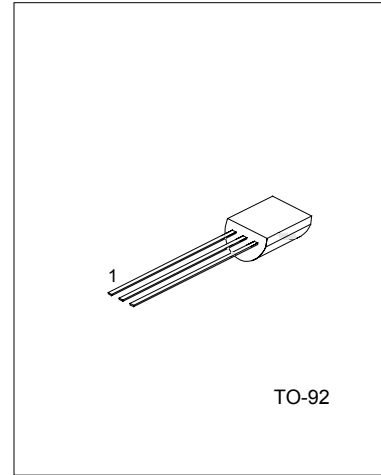
LOW VOLTAGE HIGH CURRENT SMALL SIGNAL PNP TRANSISTOR

DESCRIPTION

The UTC HE8550 is a low voltage high current small signal PNP transistor, designed for Class B push-pull 2W audio amplifier for portable radio and general purpose applications.

FEATURES

- *Collector current up to 1.5A
- *Collector-Emitter voltage up to 25 V
- *Complimentary to UTC HE8050



1:EMITTER 2:COLLECTOR 3:BASE

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

| PARAMETER | SYMBOL | VALUE | UNIT |
|--------------------------------|------------------|------------|------|
| Collector-Base Voltage | V _{CB0} | -40 | V |
| Collector-Emitter Voltage | V _{CEO} | -25 | V |
| Emitter-Base Voltage | V _{EBO} | -6 | V |
| Collector Dissipation(Ta=25°C) | P _c | 1 | W |
| Collector Current | I _c | -1.5 | A |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{STG} | -65 ~ +150 | °C |

ELECTRICAL CHARACTERISTICS (Tj=25°C, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|--|-----|-------|------|------|
| Collector-Base Breakdown Voltage | BV _{CB0} | I _c =-100μA, 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 =-100μA, I _c =0 | -6 | | | V |
| Collector Cut-Off Current | I _{CB0} | V _{CB} =-35V, I _E =0 | | | -100 | nA |
| Emitter Cut-Off Current | I _{EBO} | V _{EB} =-6V, I _c =0 | | | -100 | nA |
| DC Current Gain(note) | h _{FE1} | V _{CE} =-1V, I _c =-5mA | 45 | 170 | | |
| | h _{FE2} | V _{CE} =-1V, I _c =-100mA | 85 | 160 | 500 | |
| | h _{FE3} | V _{CE} =-1V, I _c =-800mA | 40 | 80 | | |
| 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 | -1.0 | V |
| Current Gain Bandwidth Product | f _t | V _{CE} =-10V, I _c =-50mA | 100 | 190 | | MHz |
| Output Capacitance | C _{ob} | V _{CB} =-10V, I _E =0 f=1MHz | | 9.0 | | pF |

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CLASSIFICATION OF hFE

| RANK | C | D | E |
|-------|---------|---------|---------|
| RANGE | 120-200 | 160-300 | 250-500 |

TYPICAL PERFORMANCE CHARACTERISTICS

Fig.1 Static characteristics

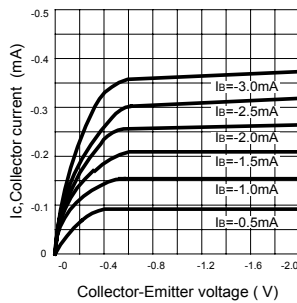


Fig.2 DC current Gain

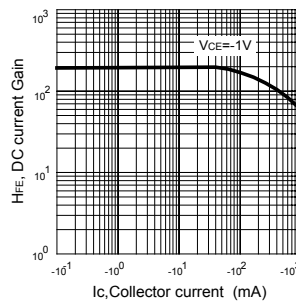


Fig.3 Base-Emitter on Voltage

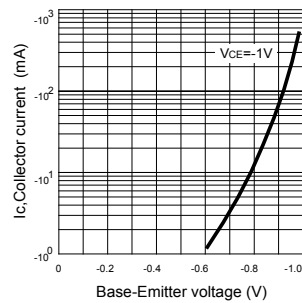


Fig.4 Saturation voltage

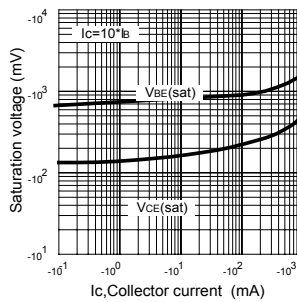


Fig.5 Current gain-bandwidth product

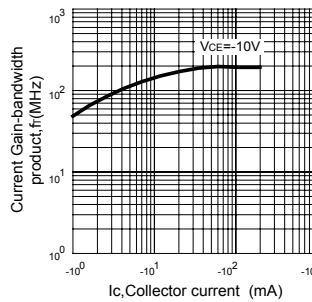
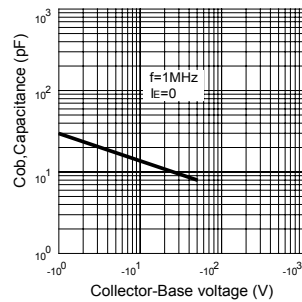


Fig.6 Collector output Capacitance



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