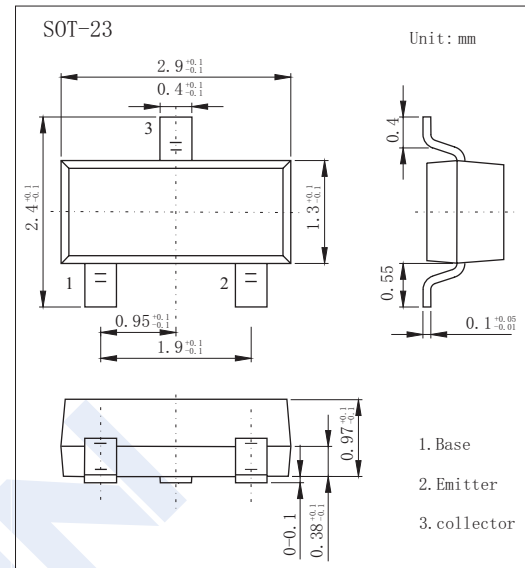


PNP Transistor

STR2550

■ Features

- Excellent h_{FE} linearity up to 50 mA
- The NPN complementary type is STR1550

■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}.$)

| Parameter | Symbol | Rating | Unit |
|--|-----------------|-------------|---------------------------|
| Collector - Base Voltage | V_{CBO} | -500 | V |
| Collector - Emitter Voltage | V_{CEO} | -500 | |
| Emitter - Base Voltage | V_{EBO} | -7 | |
| Collector Current (DC) | I_C | -0.5 | A |
| Collector peak current ($t_p < 5$ ms) | I_{CM} | -1 | |
| Power Dissipation | P_C | 500 | mW |
| Thermal Resistance Junction to Ambient ^{*1} | $R_{\theta JA}$ | 250 | $^\circ\text{C}/\text{W}$ |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature range | T_{stg} | -55 to +150 | |

*1. Device mounted on PCB area of 1 cm².

PNP Transistor

STR2550

■ Electrical Characteristics (T_c = 25 °C unless otherwise specified.)

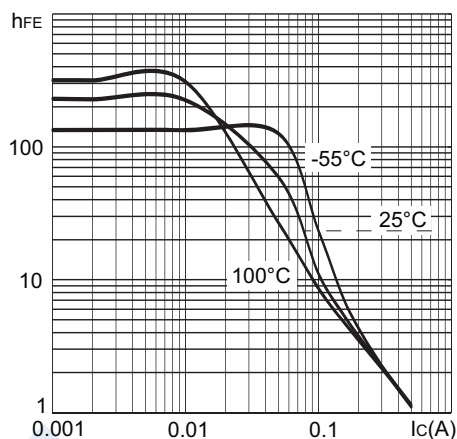
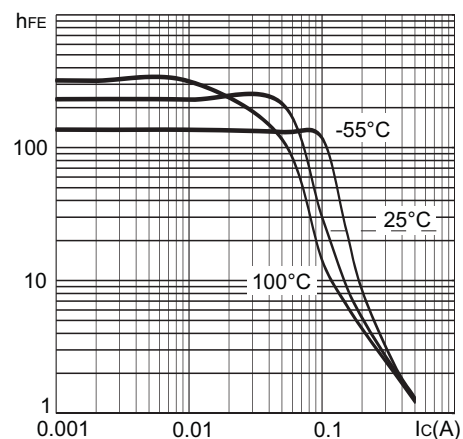
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--|----------------------|--|------|-----|------|------|
| Collector- base breakdown voltage | V _{CB0} | I _c = -100 μA , I _E = 0 | -500 | | | V |
| Collector- emitter breakdown voltage ^{*1} | V _{CEO} | I _c = -1 mA , I _B = 0 | -500 | | | |
| Emitter - base breakdown voltage | V _{EB0} | I _E = -100 μA , I _C = 0 | -7 | | | |
| Collector-base cut-off current | I _{CB0} | V _{CB} = -500V , I _E = 0 | | | -10 | μA |
| Emitter cut-off current | I _{EB0} | V _{EB} = -5V , I _C = 0 | | | -1 | |
| Collector-emitter saturation voltage ^{*1} | V _{CE(sat)} | I _C = -20mA , I _B = -2mA | | | -0.2 | V |
| | | I _C = -50mA , I _B = -10mA | | | -0.3 | |
| Base - emitter saturation voltage ^{*1} | V _{BE(sat)} | I _C = -50mA , I _B = -10mA | | | -1.0 | |
| Base-emitter on voltage | V _{BE(on)} | I _C = -50 mA , V _{CE} = -10 V | | | -1.1 | |
| DC current gain ^{*1} | h _{FE} | V _{CE} = -10 V , I _C = -1 mA | 100 | | | |
| | | V _{CE} = -10 V , I _C = -50 mA | 100 | | 300 | |
| | | V _{CE} = -10 V , I _C = -100 mA | 10 | | | |

*1.Pulse test: pulse duration ≤ 300 μs, duty cycle ≤ 2%

■ Marking

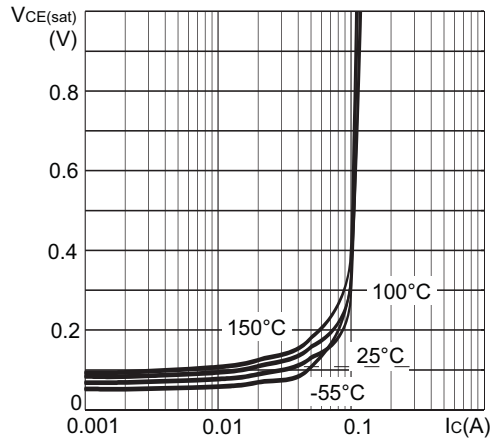
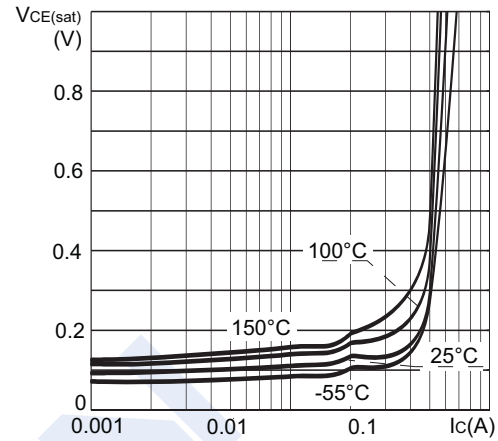
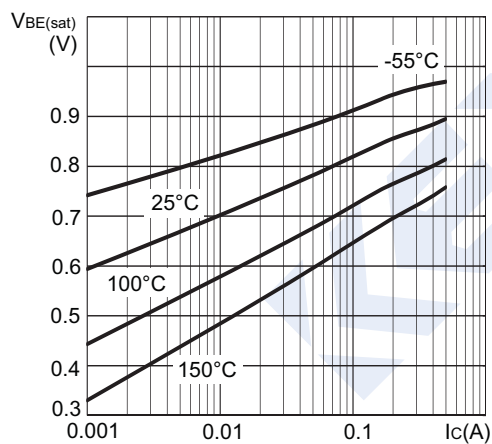
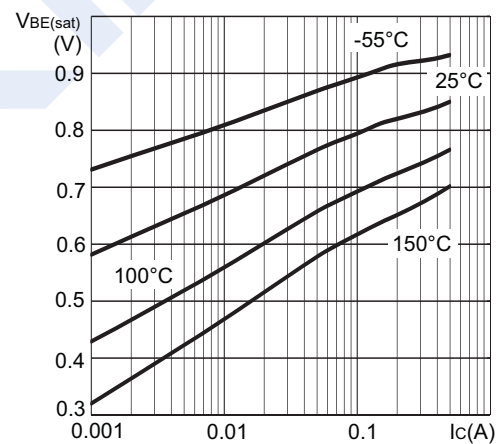
| | |
|---------|------|
| Marking | 2550 |
|---------|------|

■ Typical Characteristics

Figure 1. h_{FE} vs. I_C @ V_{CE} = 5 VFigure 2. h_{FE} vs. I_C @ V_{CE} = 10 V

PNP Transistor

STR2550

Figure 3. $V_{CE(sat)}$ vs. I_C @ $h_{FE} = 5$ Figure 4. $V_{CE(sat)}$ vs. I_C @ $h_{FE} = 10$ Figure 5. $V_{BE(sat)}$ vs. I_C @ $h_{FE} = 5$ Figure 6. $V_{BE(sat)}$ vs. I_C @ $h_{FE} = 10$ Figure 7. $V_{BE(on)}$ vs. I_C @ $V_{CE} = 10$ V