

SS8550G TRANSISTOR (NPN)

Features

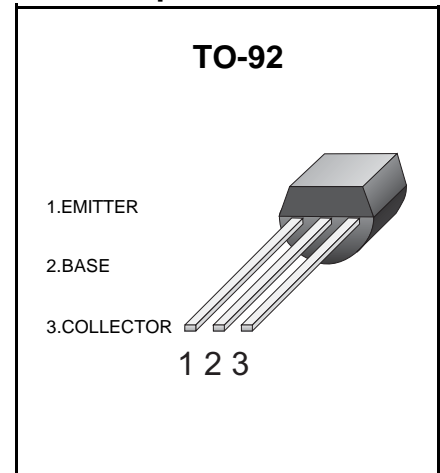
Power dissipation

$$P_C : 1 \text{ W } (T_a=25^\circ\text{C})$$

Maximum Ratings($T_a=25^\circ\text{C}$ unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------|------------------------------|---------|------------------|
| V_{CB0} | Collector-Base Voltage | -40 | V |
| V_{CE0} | Collector-Emitter Voltage | -25 | V |
| V_{EB0} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -1.5 | A |
| T_j | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature | -55-150 | $^\circ\text{C}$ |

Simplified outline



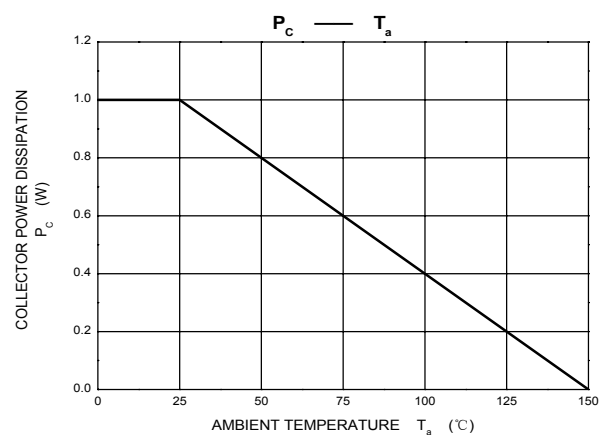
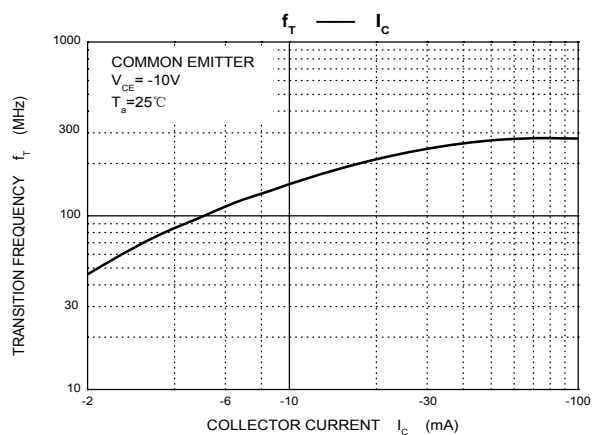
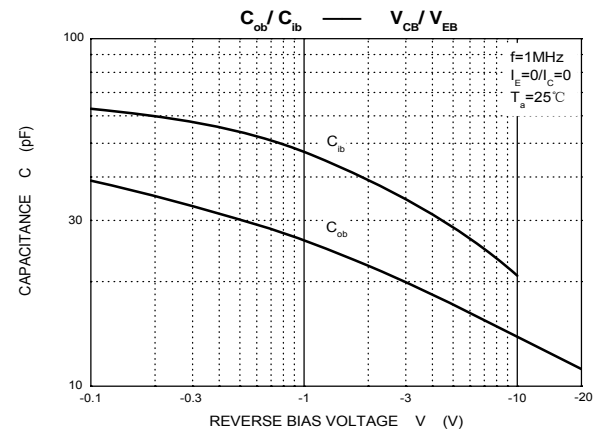
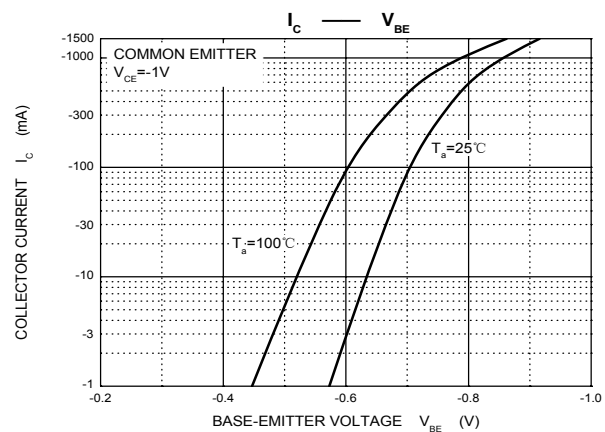
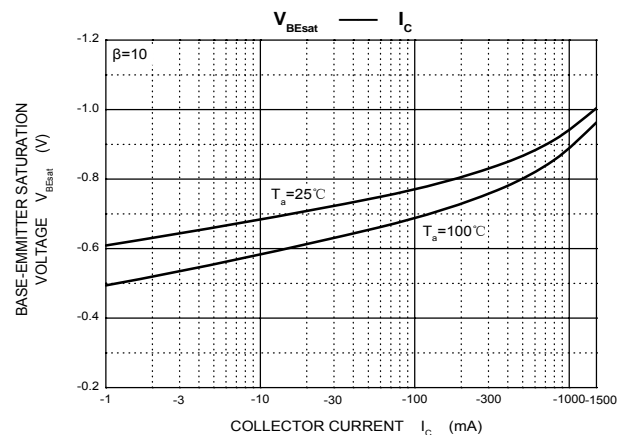
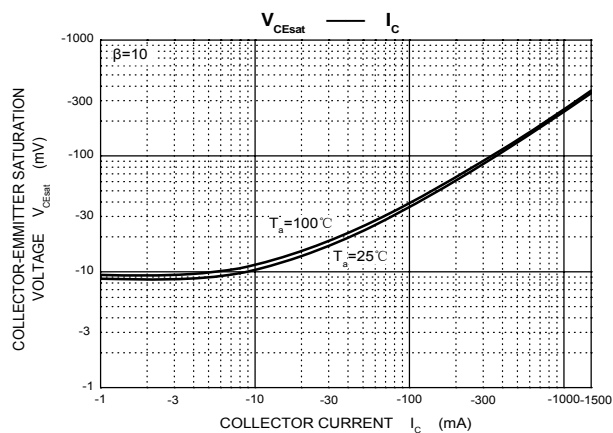
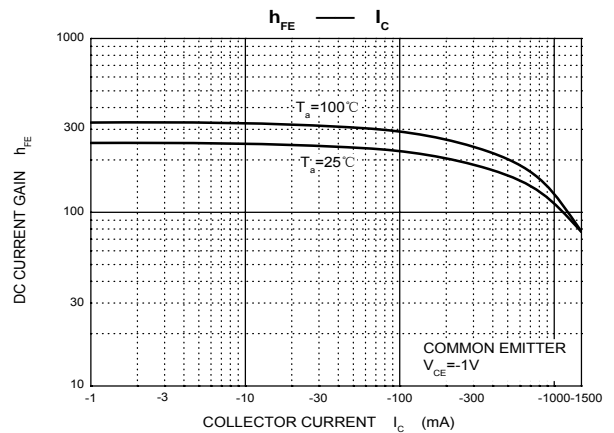
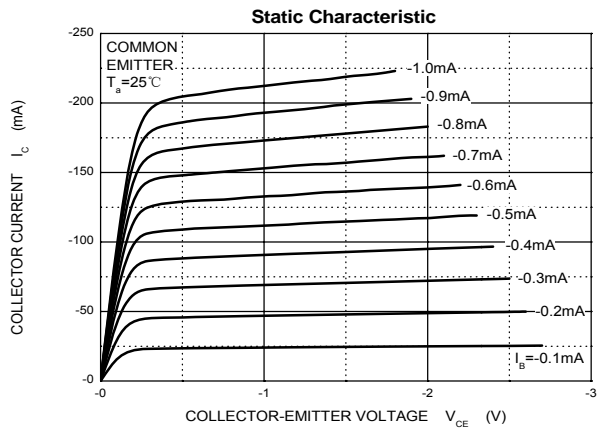
Electrical Characteristics ($T_{amb}=25$ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--------------------------------------------------------|-----|-----|------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=-100\mu\text{A}, I_E=0$ | -40 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=-0.1\text{mA}, I_B=0$ | -25 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=-100\mu\text{A}, I_C=0$ | -5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=-40\text{V}, I_E=0$ | | | -0.1 | μA |
| Emitter cut-off current | I_{CEO} | $V_{CE}=-20\text{V}, I_E=0$ | | | -0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=-5\text{V}, I_C=0$ | | | -0.1 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE}=-1\text{V}, I_C=-100\text{mA}$ | 85 | | 400 | |
| | $h_{FE(2)}$ | $V_{CE}=-1\text{V}, I_C=-800\text{mA}$ | 40 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-800\text{mA}, I_B=-80\text{mA}$ | | | -0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C=-800\text{mA}, I_B=-80\text{mA}$ | | | -1.2 | V |
| Base-emitter voltage | $V_{BE(on)}$ | $V_{CE}=-1\text{V}, I_C=-10\text{mA}$ | | | -1 | V |
| Out capacitance | C_{ob} | $V_{CB}=-10\text{V}, I_E=0\text{mA}, f=1\text{MHz}$ | | | 20 | pF |
| Transition frequency | f_T | $V_{CE}=-10\text{V}, I_C=-50\text{mA}, f=30\text{MHz}$ | 100 | | | MHz |

Classification Of $h_{FE(1)}$

| Rank | B | C | D | D3 |
|-------|--------|---------|---------|---------|
| Range | 85-160 | 120-200 | 160-300 | 300-400 |

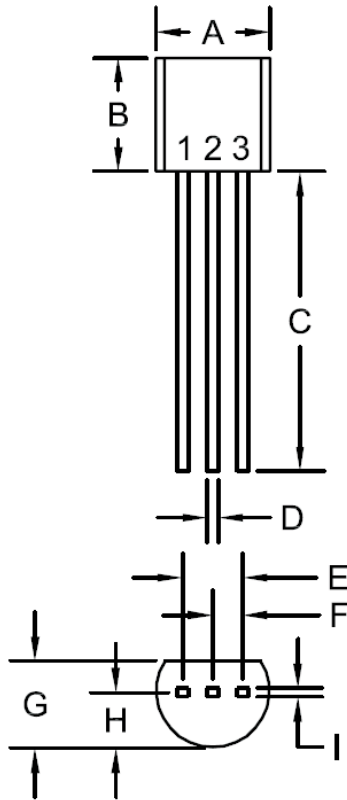
Typical Characteristics



Mechanical Data

Dimensions in mm

Net Mass:0.2 g

TO-92


| DIMENSIONS | | | | |
|------------|--------|-------|-------------|------|
| SYMBOL | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A (DIA) | 0.175 | 0.205 | 4.45 | 5.21 |
| B | 0.170 | 0.210 | 4.32 | 5.33 |
| C | 0.500 | - | 12.70 | - |
| D | 0.016 | 0.022 | 0.41 | 0.56 |
| E | 0.100 | | 2.54 | |
| F | 0.050 | | 1.27 | |
| G | 0.125 | 0.165 | 3.18 | 4.19 |
| H | 0.080 | 0.105 | 2.03 | 2.67 |
| I | 0.015 | | 0.38 | |