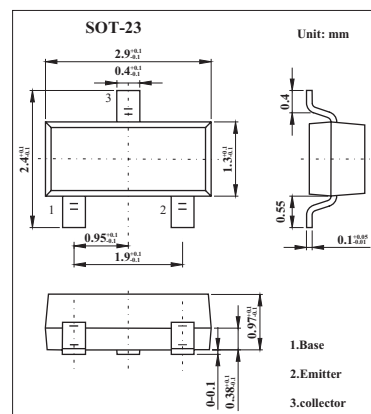


NPN Silicon Transistor

2SC5343SF

■ Features

- Low collector saturation voltage: $V_{CE}=0.25V(\text{Max.})$
- Low output capacitance: $C_{ob}=2pF(\text{Typ.})$

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

| Parameter | Symbol | Rating | Unit |
|---------------------------|-----------|-------------|------------------|
| Collector-base voltage | V_{CBO} | 60 | V |
| Collector-emitter voltage | V_{CEO} | 50 | V |
| Emitter-base voltage | V_{EBO} | 5 | V |
| Collector current | I_C | 150 | mA |
| Collector dissipation | P_C | 200 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---|-----|-----|------|---------|
| Collector-base breakdown voltage | BV_{CBO} | $I_C=100\mu A, I_E=0$ | 60 | | | V |
| Collector-emitter breakdown voltage | BV_{CEO} | $I_C=1mA, I_B=0$ | 50 | | | V |
| Emitter-base breakdown voltage | BV_{EBO} | $I_E=10\mu A, I_C=0$ | 5 | | | V |
| Collector cutoff current | I_{CBO} | $V_{CB}=60V, I_E=0$ | | | 0.1 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB}=5V, I_C=0$ | | | 0.1 | μA |
| DC current transfer ratio | h_{FE} | $V_{CE}=6V, I_C=2mA$ | 70 | | 700 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C/I_B=100mA/10mA$ | | | 0.25 | V |
| Transition frequency | f_T | $V_{CE}=10V, I_C=1mA,$ | 80 | | | MHz |
| Output capacitance | C_{ob} | $V_{CB}=10V, I_E=0, f=1MHz$ | | 2 | 3.5 | pF |
| Noise figure | NF | $V_{CE}=6V, I_C=0.1mA, f=1KHz, R_g=10k\Omega$ | | | 10 | dB |

■ h_{FE} Classification

| Marking | DA | | | |
|----------|--------|---------|---------|---------|
| | O | Y | G | L |
| h_{FE} | 70~140 | 120~240 | 200~400 | 300~700 |