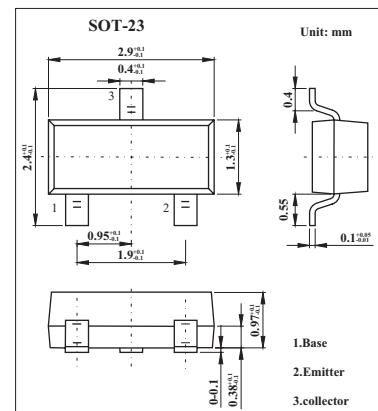


NPN Silicon Transistor

2SC5342SF

■ Features

- Large collector current: $I_c=500\text{mA}$.
- Low collector saturation voltage enabling low-voltage operation.



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

| Parameter | Symbol | Rating | Unit |
|---------------------------|-----------|-------------|------|
| Collector-base voltage | V_{CBO} | 40 | V |
| Collector-emitter voltage | V_{CEO} | 32 | V |
| Emitter-base voltage | V_{EBO} | 5 | V |
| Collector current | I_c | 500 | mA |
| Collector dissipation | P_c | 200 | mW |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |

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

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-----|-----|------|---------------|
| Collector-base breakdown voltage | BV_{CBO} | $I_C=100\mu\text{A}, I_E=0$ | 40 | | | V |
| Collector-emitter breakdown voltage | BV_{CEO} | $I_C=1\text{mA}, I_B=0$ | 32 | | | V |
| Emitter-base breakdown voltage | BV_{EBO} | $I_E=10\mu\text{A}, I_C=0$ | 5 | | | V |
| Collector cutoff current | I_{CBO} | $V_{CB}=40\text{V}, I_E=0$ | | | 0.1 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB}=5\text{V}, I_C=0$ | | | 0.1 | μA |
| DC current transfer ratio | h_{FE} | $V_{CE}=1\text{V}, I_C=-100\text{mA}$ | 70 | 240 | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C/I_B=100\text{mA}/10\text{mA}$ | | | 0.25 | V |
| Transition frequency | f_T | $V_{CE}=6\text{V}, I_E=-20\text{mA}$ | 300 | | | MHz |
| Output capacitance | C_{ob} | $V_{CB}=6\text{V}, I_E=0, f=1\text{MHz}$ | 7.5 | | | pF |

■ hFE Classification

| Marking | BA | |
|---------|--------|---------|
| Rank | O | Y |
| hFE | 70~140 | 120~240 |