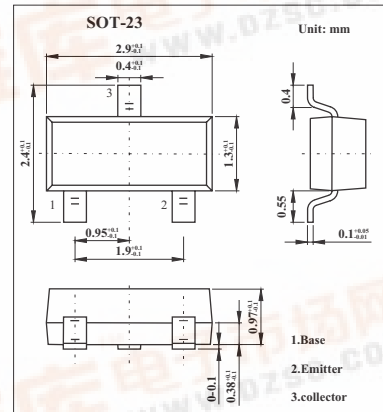


SMD Type Transistors

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    | $V_{CB0}$ | 60          | V                |
| Collector-emitter voltage | $V_{CE0}$ | 50          | V                |
| Emitter-base voltage      | $V_{EB0}$ | 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     | $BV_{CB0}$    | $I_c=100\mu A, I_E=0$                         | 60  |     |      | V       |
| Collector-emitter breakdown voltage  | $BV_{CE0}$    | $I_c=1mA, I_B=0$                              | 50  |     |      | V       |
| Emitter-base breakdown voltage       | $BV_{EB0}$    | $I_E=10\mu A, I_c=0$                          | 5   |     |      | V       |
| Collector cutoff current             | $I_{cBO}$     | $V_{CB}=60V, I_E=0$                           |     |     | 0.1  | $\mu A$ |
| Emitter cutoff current               | $I_{EBO}$     | $V_{EB}=5V, I_c=0$                            |     |     | 0.1  | $\mu A$ |
| 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      |

hFE Classification

| Marking | DA     |         |         |         |
|---------|--------|---------|---------|---------|
|         | O      | Y       | G       | L       |
| Rank    |        |         |         |         |
| hFE     | 70~140 | 120~240 | 200~400 | 300~700 |

