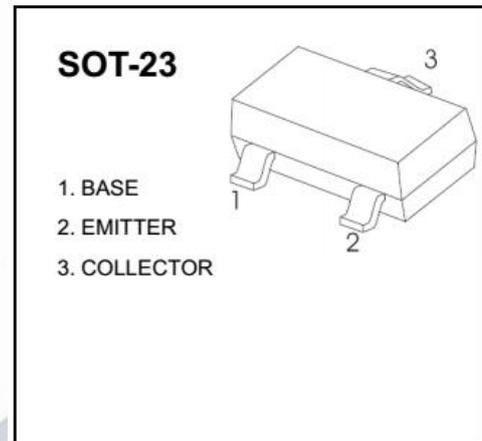


isc Silicon NPN Power Transistor**SS8050****DESCRIPTION**

- Low Saturation Voltage-
: $V_{CE(sat)} = 0.5V(\text{Max}) @ I_C = 0.8A$

APPLICATIONS

- Designed for high-speed switching and Amplifier applications.

**ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)**

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 40 | V |
| V_{CEO} | Collector-Emitter Voltage | 25 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current-Continuous | 1.5 | A |
| P_C | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 300 | mW |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature | -55~150 | $^\circ\text{C}$ |

isc Silicon NPN Power Transistor**SS8050****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---------------|--------------------------------------|--|-----|-----|---------------|
| $V_{(BR)CBO}$ | Collector-base breakdown voltage | $I_C=100\mu\text{A}$, $I_E=0$ | 40 | | V |
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage | $I_C=0.1\text{mA}$, $I_B=0$ | 25 | | V |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage | $I_E=100\mu\text{A}$, $I_C=0$ | 5 | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=800\text{mA}$; $I_B=80\text{mA}$ | | 0.5 | V |
| $V_{BE(sat)}$ | base-emitter saturation voltage | $I_C=800\text{mA}$; $I_B=80\text{mA}$ | | 1.2 | V |
| I_{CBO} | collector cut-off current | $V_{CB}=40\text{V}$, $I_E=0$ | | 0.1 | μA |
| I_{CEO} | collector cut-off current | $V_{CE}=20\text{V}$, $I_B=0$ | | 0.1 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}=5\text{V}$; $I_C=0$ | | 0.1 | μA |
| h_{FE-1} | DC Current Gain | $I_C=0.1\text{A}$; $V_{CE}=1\text{V}$ | 120 | 400 | |
| h_{FE-2} | DC Current Gain | $I_C=0.8\text{A}$; $V_{CE}=1\text{V}$ | 40 | | |
| f_T | Transition frequency | $V_{CE}=10\text{V}$, $I_C=50\text{mA}$, $f=30\text{MHz}$ | 100 | | MHz |

Classification of h_{FE-1}

| Rank | L | H | J |
|-------|---------|---------|---------|
| Range | 120-200 | 200-350 | 300-400 |