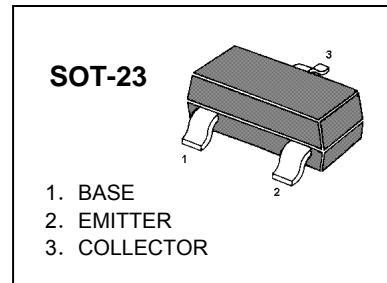


TRANSISTOR (NPN)

FEATURES

Complimentary to SS8550

MARKING: Y1



MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

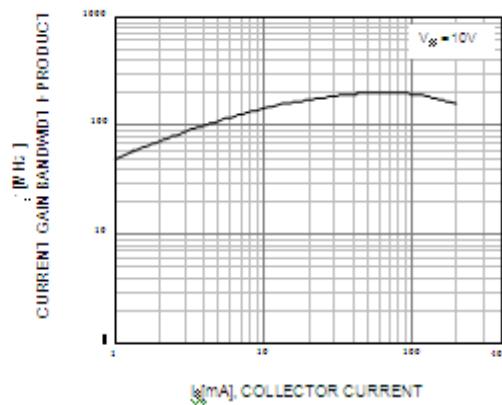
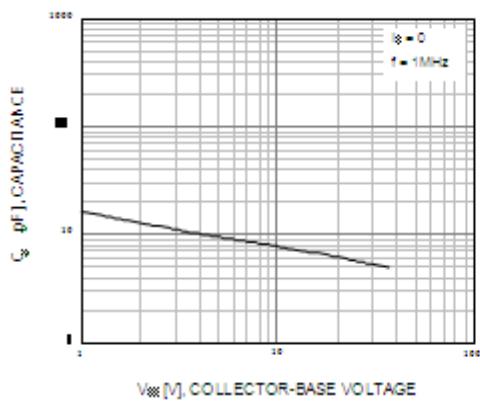
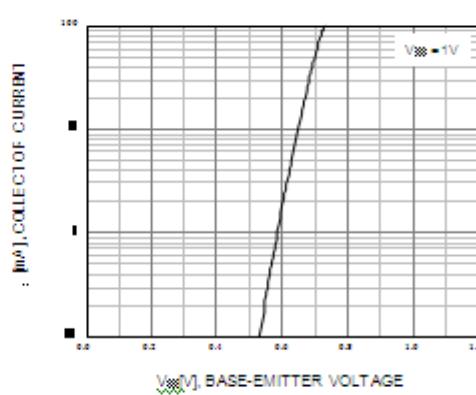
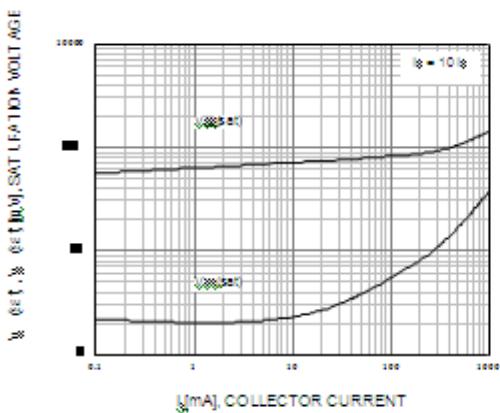
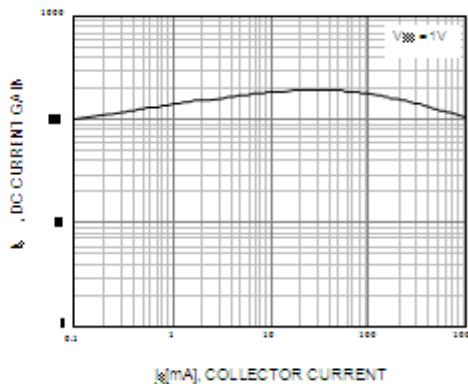
| Symbol | Parameter | Value | Units |
|-----------|-------------------------------|---------|-------|
| V_{CBO} | Collector-Base Voltage | 40 | V |
| V_{CEO} | Collector-Emitter Voltage | 25 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current -Continuous | 1.5 | A |
| P_c | Collector Power Dissipation | 0.3 | W |
| T_j | Junction Temperature | 150 | °C |
| T_{stg} | Storage Temperature | -55-150 | °C |

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$ 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 |
| Collector cut-off current | I_{CEO} | $V_{CB}=20\text{V}, I_E=0$ | | | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}= 5\text{V}, I_C=0$ | | | 0.1 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE}=1\text{V}, I_C= 100\text{mA}$ | 200 | | 350 | |
| | $h_{FE(2)}$ | $V_{CE}=1\text{V}, I_C= 800\text{mA}$ | 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 |
| Transition frequency | f_T | $V_{CE}=10\text{V}, I_C= 50\text{mA}$ $f=30\text{MHz}$ | 100 | | | MHz |

Typical Characteristics

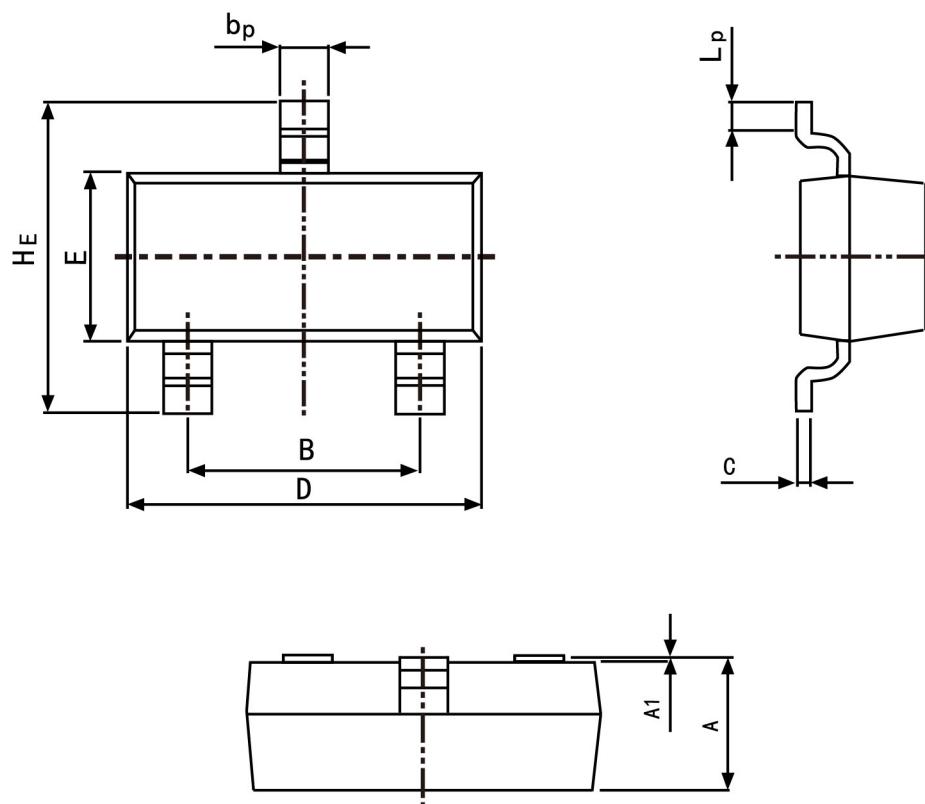
SS8050



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



| Symbol | Dimension in Millimeters | |
|--------|--------------------------|-------|
| | Min | Max |
| A | 0.95 | 1.40 |
| B | 1.78 | 2.04 |
| bp | 0.35 | 0.50 |
| C | 0.08 | 0.19 |
| D | 2.70 | 3.10 |
| E | 1.20 | 1.65 |
| HE | 2.20 | 3.00 |
| A1 | 0.100 | 0.013 |
| Lp | 0.20 | 0.50 |