

SS8050 TRANSISTOR (NPN)

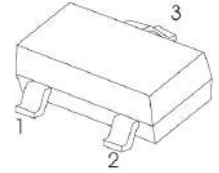
FEATURES

Complimentary to SS8550

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|------------------|---|----------|------|
| V _{CB0} | Collector-Base Voltage | 40 | V |
| V _{CEO} | Collector-Emitter Voltage | 25 | V |
| V _{EBO} | Emitter-Base Voltage | 5 | V |
| I _C | Collector Current | 1.5 | A |
| P _C | Collector Power Dissipation | 250 | mW |
| R _{θJA} | Thermal Resistance From Junction To Ambient | 500 | °C/W |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55~+150 | °C |

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|---|-----|-----|-----|------|
| Collector-base breakdown voltage | V _{(BR)CBO} | I _C = 100μA, I _E =0 | 40 | | | V |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C = 0.1mA, I _B =0 | 25 | | | V |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E =100μA, I _C =0 | 5 | | | V |
| Collector cut-off current | I _{CBO} | V _{CB} =40V, I _E =0 | | | 0.1 | μA |
| Collector cut-off current | I _{CEO} | V _{CE} =20V, I _E =0 | | | 0.1 | μA |
| Emitter cut-off current | I _{EBO} | V _{EB} = 5V, I _C =0 | | | 0.1 | μA |
| DC current gain | h _{FE(1)} | V _{CE} =1V, I _C = 100mA | 120 | | 400 | |
| | h _{FE(2)} | V _{CE} =1V, I _C = 800mA | 40 | | | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =800mA, I _B = 80mA | | | 0.5 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C =800mA, I _B = 80mA | | | 1.2 | V |
| Transition frequency | f _T | V _{CE} =10V, I _C = 50mA, f=30MHz | 100 | | | MHz |
| Collector output capacitance | C _{ob} | V _{CB} =10V, I _E =0, f=1MHz | | | 15 | pF |

CLASSIFICATION OF h_{FE(1)}

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

Typical Characteristics

