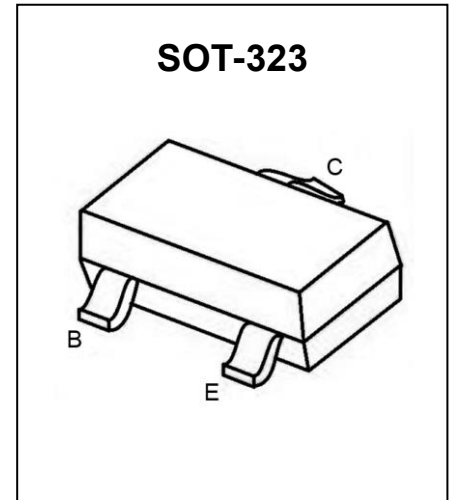




SS8050 Transistor(NPN)

Feature

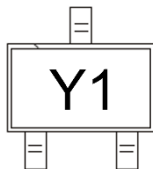
- NPN epitaxial silicon , planar design
- Collector-emitter voltage $V_{CE}=25V$
- Collector current $I_C=1.5A$
- In compliance with SS8550



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

| Parameter | Symbol | Value | Unit |
|-------------------------------|-----------|-----------|-------------|
| Collector-Base Voltage | V_{CBO} | 40 | V |
| Collector-Emitter Voltage | V_{CEO} | 25 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current -Continuous | I_C | 1.5 | A |
| Power Dissipation | P_d | 0.25 | W |
| Junction Temperature | T_J | 150 | $^{\circ}C$ |
| Storage Temperature | T_{STG} | -55~ +150 | $^{\circ}C$ |

MARKING:



Classification of hfe:

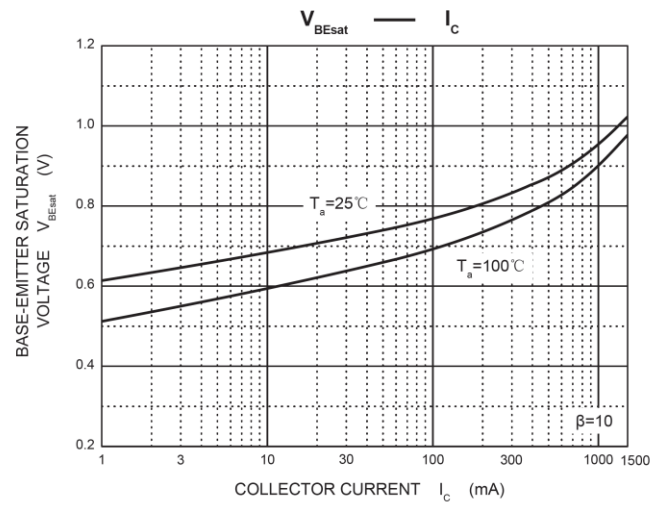
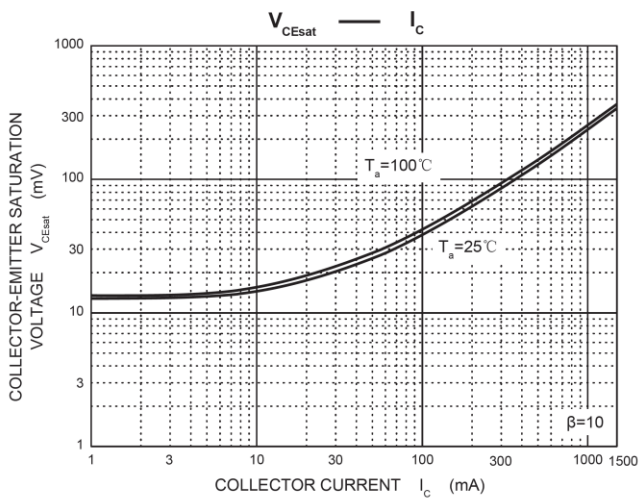
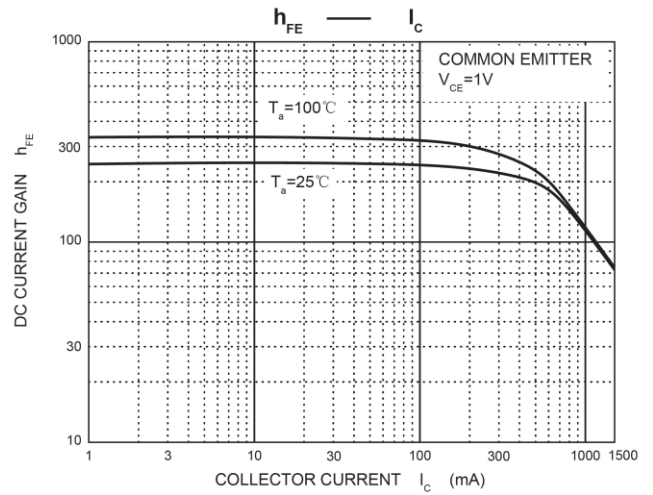
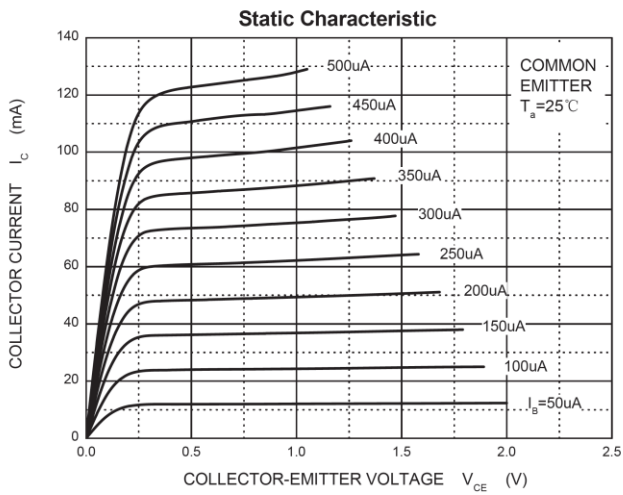
| RANK | L | H | J |
|-------|---------|---------|---------|
| RANGE | 120~200 | 200~350 | 350~400 |

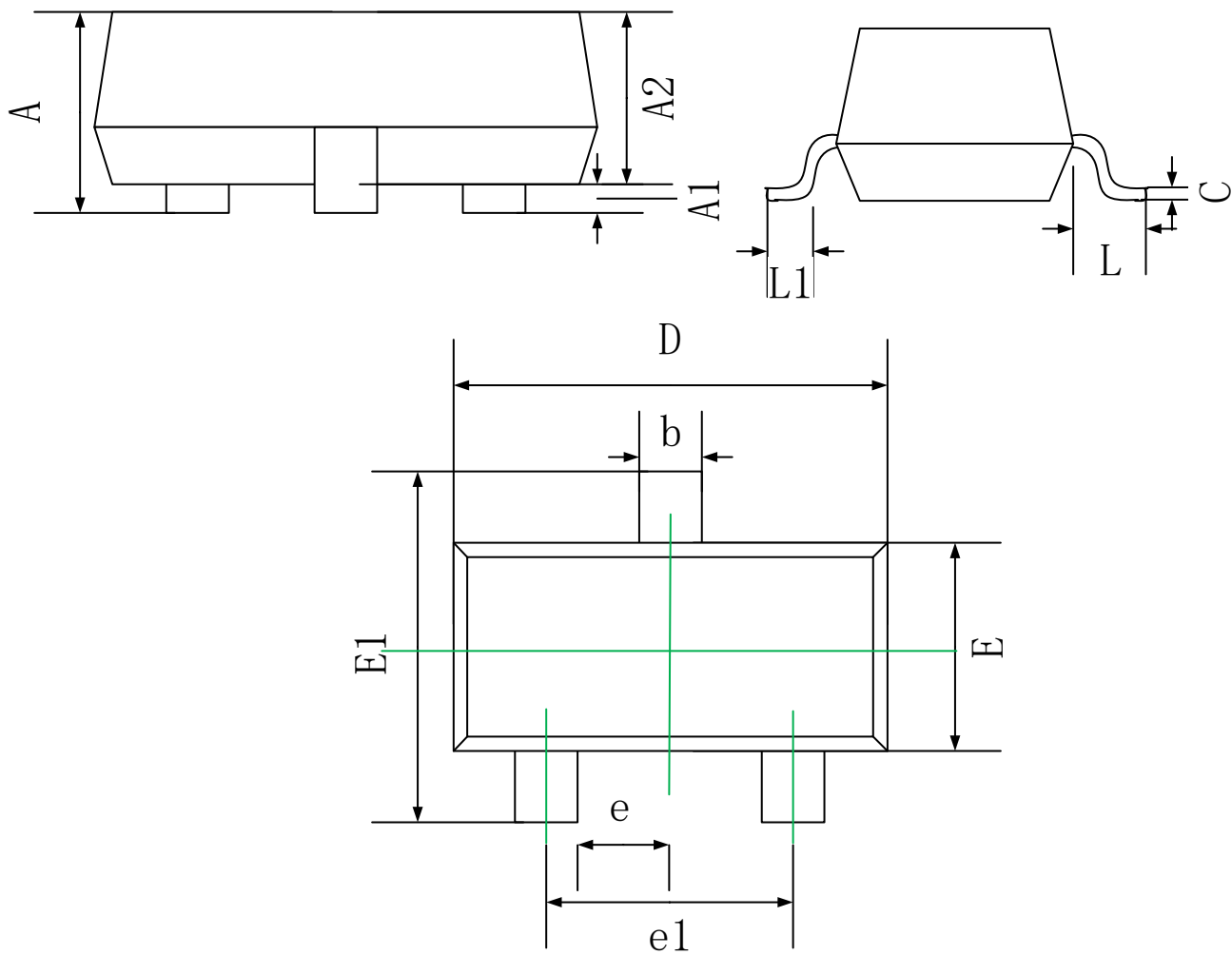
ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise noted)

| Parameter | Symbol | Test Condition | Min | 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 =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 | | 100 | nA |
| Collector cut-off current | I _{CEO} | V _{CE} =20V, I _B =0 | | 100 | nA |
| Emitter cut-off current | I _{EBO} | V _{EB} =5V, I _C =0 | | 100 | nA |
| DC current gain | h _{FE} | V _{CE} =1V, I _C =0.1mA | 40 | | |
| | h _{FE} | V _{CE} =1V, I _C =1mA | 70 | | |
| | h _{FE} | V _{CE} =1V, I _C =100mA | 100 | 400 | |
| | h _{FE} | V _{CE} =1V, I _C =400mA | 60 | | |
| | h _{FE} | V _{CE} =1V, I _C =800mA | 30 | | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =800mA, I _B =80mA | | 0.5 | V |
| | | I _C =500mA, I _B =50mA | | 0.6 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C =100mA, I _B =10mA | | 1.1 | V |
| | | I _C =800mA, I _B =80mA | | 1.2 | V |
| Transition frequency | f _T | V _{CE} = 10V, I _C =50mA, f=30MHz | 100 | | MHZ |
| Input capacitance | C _{IB} | V _{CB} = 5V, I _E =0, f=1MHz | | 4 | pF |
| Output capacitance | C _{OB} | V _{EB} = 0.5V, I _C =0, f=1MHz | | 8 | pF |
| Delay time | t _d | V _{CC} =3V, V _{BE} =0.5V, | | 35 | nS |
| Rise time | t _r | I _C =10mA, I _B =1mA | | 35 | nS |
| Storage time | t _s | V _{CC} =3V, V _{BE} =0.5V, | | 200 | nS |
| Fall time | t _f | I _{B1} = I _{B2} =-1mA | | 50 | nS |

*Pulse Test: Pulse Width<300uS , Duty Cycle<2.0%

Typical Characteristics



SOT-323 Package Information


| Symbol | Dimensions In Millimeters | |
|--------|---------------------------|------|
| | Min. | Max. |
| A | 0.90 | 1.15 |
| A1 | 0.00 | 0.10 |
| A2 | 0.90 | 1.05 |
| b | 0.20 | 0.40 |
| c | 0.08 | 0.15 |
| D | 2.00 | 2.20 |
| E | 1.15 | 1.35 |
| E1 | 2.15 | 2.45 |
| e | 0.65 TYP. | |
| e1 | 1.20 | 1.40 |
| L | 0.525 REF. | |
| L1 | 0.26 | 0.46 |