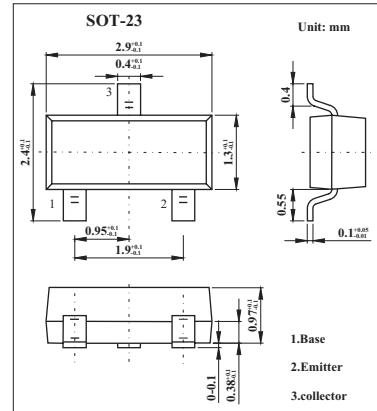


NPN Transistors

■ Features

- Excellent h_{FE} linearity
- Collector Current : I_C=0.1A



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|-------------------------------|------------------|------------|------|
| Collector-Base Voltage | V _{CBO} | 50 | V |
| Collector-Emitter Voltage | V _{CEO} | 45 | V |
| Emitter-Base Voltage | V _{EBO} | 5 | V |
| Collector Current -Continuous | I _C | 0.1 | A |
| Collector Power Dissipation | P _C | 0.2 | W |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{stg} | -55 to 150 | °C |

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|--|-----|------|-----|------|
| Collector-base breakdown voltage | V _{CBO} | I _C =100µA, I _E =0 | 50 | | | V |
| Collector-emitter breakdown voltage | V _{CEO} | I _C =1mA, I _B =0 | 45 | | | V |
| Emitter-base Breakdown voltage | V _{EBO} | I _E =100 µ A, I _C =0 | 5 | | | V |
| Collector cutoff current | I _{CB0} | V _{CB} =50V, I _E =0 | | 0.1 | | µ A |
| Emitter cutoff current | I _{EB0} | V _{EB} =5V, I _C =0 | | 0.1 | | µ A |
| DC current gain | h _{FE} | V _{CE} =5V, I _C =1mA | 200 | 1000 | | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =100mA, I _B =10mA | | 0.5 | | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C =100mA, I _B =10mA | | 1 | | V |
| Transition frequency | f _T | V _{CE} =5V, I _C =10mA, f=30MHZ | 150 | | | MHz |

■ h_{FE} Classification

| Marking | J6 | |
|-----------------|------------|-------------|
| Rank | L | H |
| h _{FE} | 200 to 450 | 450 to 1000 |

■ Typical Characteristics

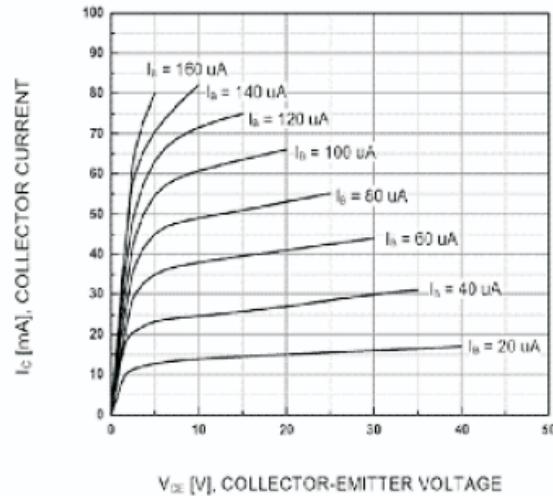


Fig.1 Static Characteristic

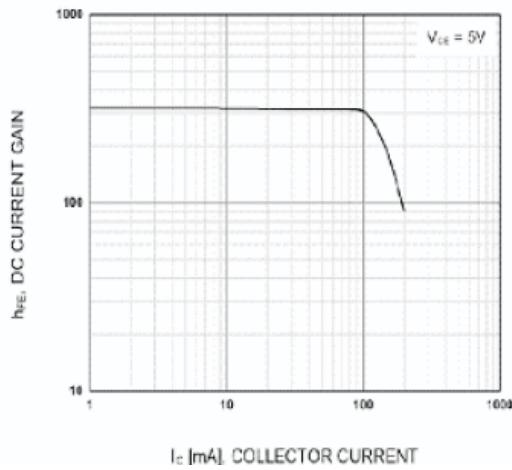


Fig.2 DC Current Gain

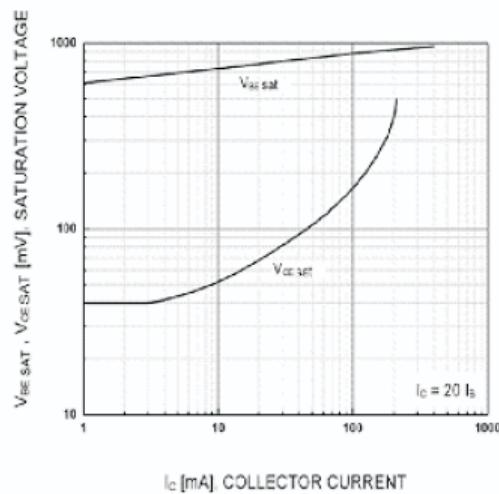


Fig.3 Base-Emitter Saturation Voltage
Collector- Emitter Saturation Voltage

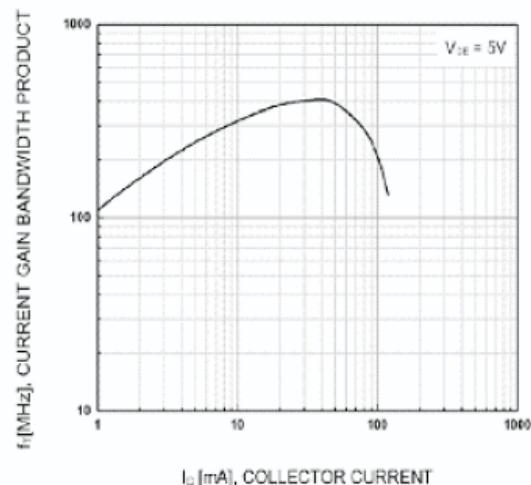


Fig. 4 Current Gain Bandwidth Product