

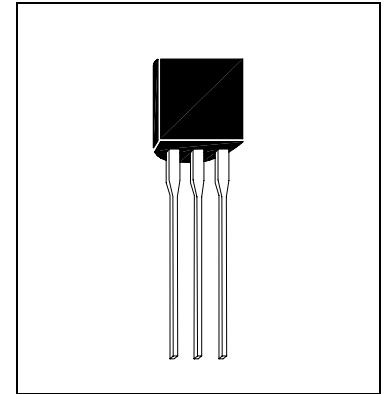


## 2SC1959

NPN EPITAXIAL PLANAR TRANSISTOR

### Description

The 2SC1959 is designed for audio frequency Low power amplifier applications.



### Features

- Excellent hFE Linearity.

### Absolute Maximum Ratings

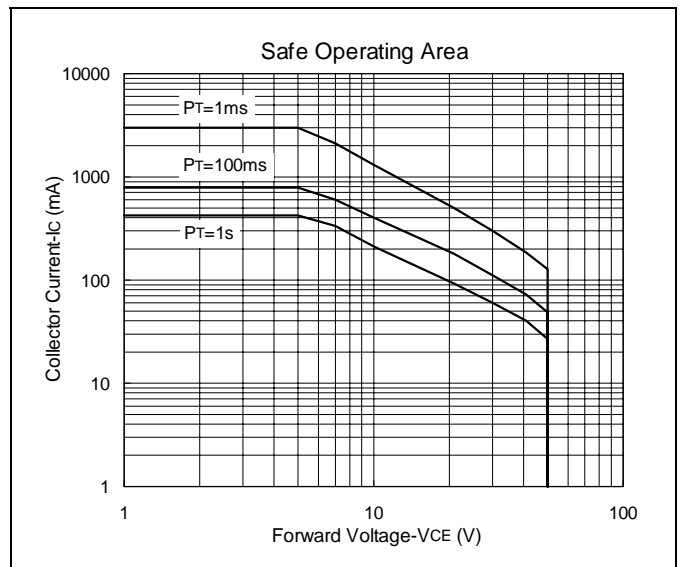
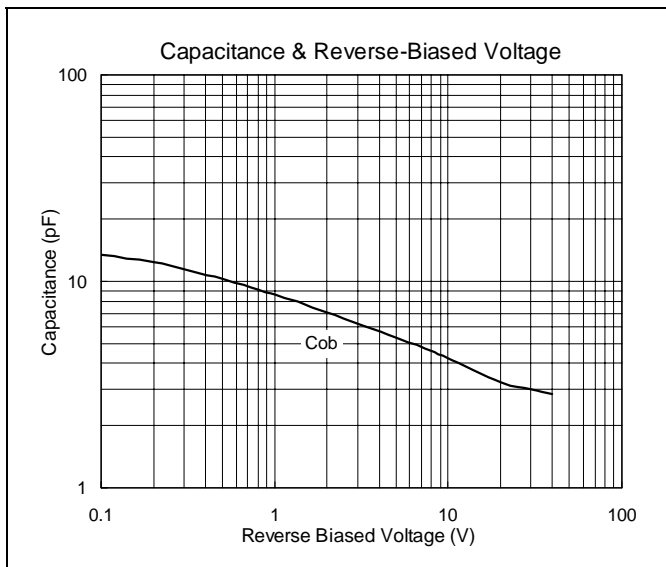
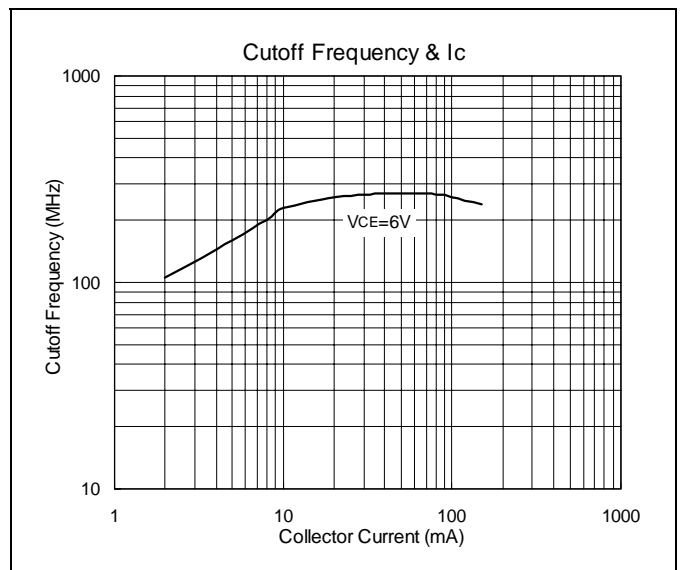
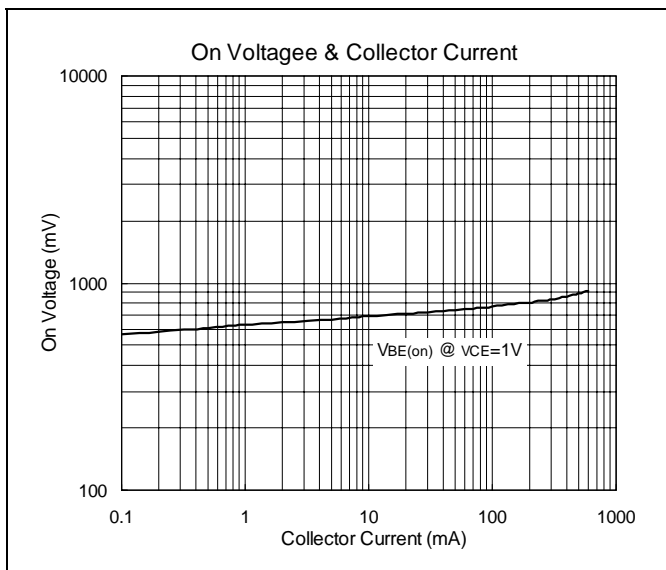
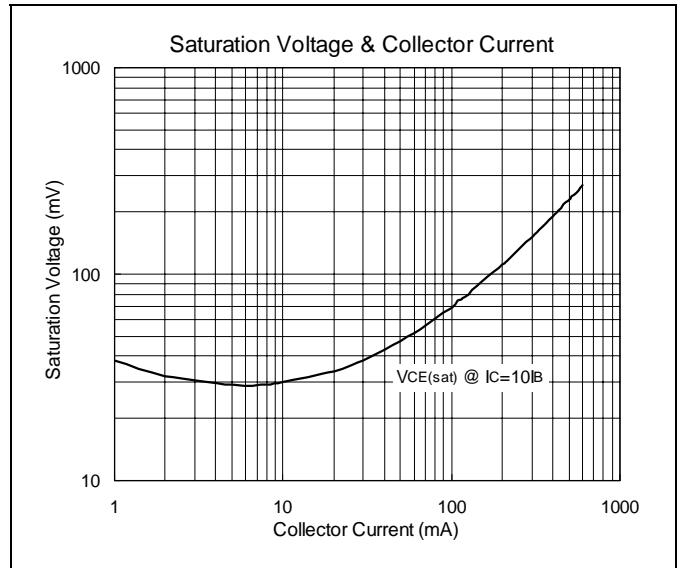
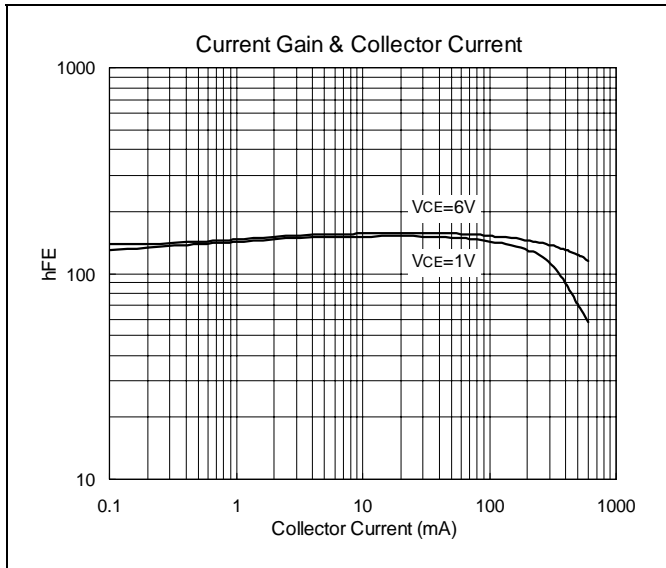
- Maximum Temperatures  
Storage Temperature ..... -55~+150°C  
Junction Temperature ..... 150°C Maximum
- Maximum Power Dissipation  
Total Power Dissipation (Ta=25°C) ..... 500 mW
- Maximum Voltages and Currents (Ta=25°C)  
VCBO Collector to Base Voltage ..... 35 V  
VCEO Collector to Emitter Voltage ..... 30 V  
VEBO Emitter to Base Voltage ..... 5.0 V  
IC Collector Current ..... 500 mA

### Characteristics (Ta=25°C)

| Symbol   | Min. | Typ. | Max. | Unit | Test Conditions      |
|----------|------|------|------|------|----------------------|
| BVCBO    | 35   | -    | -    | V    | IC=100uA, IE=0       |
| BVCEO    | 30   | -    | -    | V    | IC=1mA, IB=0         |
| BVEB     | 5    | -    | -    | V    | IE=10uA, IC=0        |
| ICBO     | -    | -    | 100  | nA   | VCB=35V, IE=0        |
| IEBO     | -    | -    | 100  | nA   | VEB=5V, IC=0         |
| VCE(sat) | -    | -    | 0.25 | V    | IC=100mA, IB=10mA    |
| VBE(on)  | -    | -    | 1.0  | V    | VCE=1V, IC=100mA     |
| hFE1     | 120  | -    | 240  |      | VCE=1V, IC=100mA     |
| hFE2     | 40   | -    | -    |      | VCE=6V, IC=400mA     |
| fT       | -    | 300  | -    | MHz  | IC=20mA, VCE=6V      |
| Cob      | -    | 7.0  | -    | pF   | IE=0, VCB=6V, f=1MHZ |

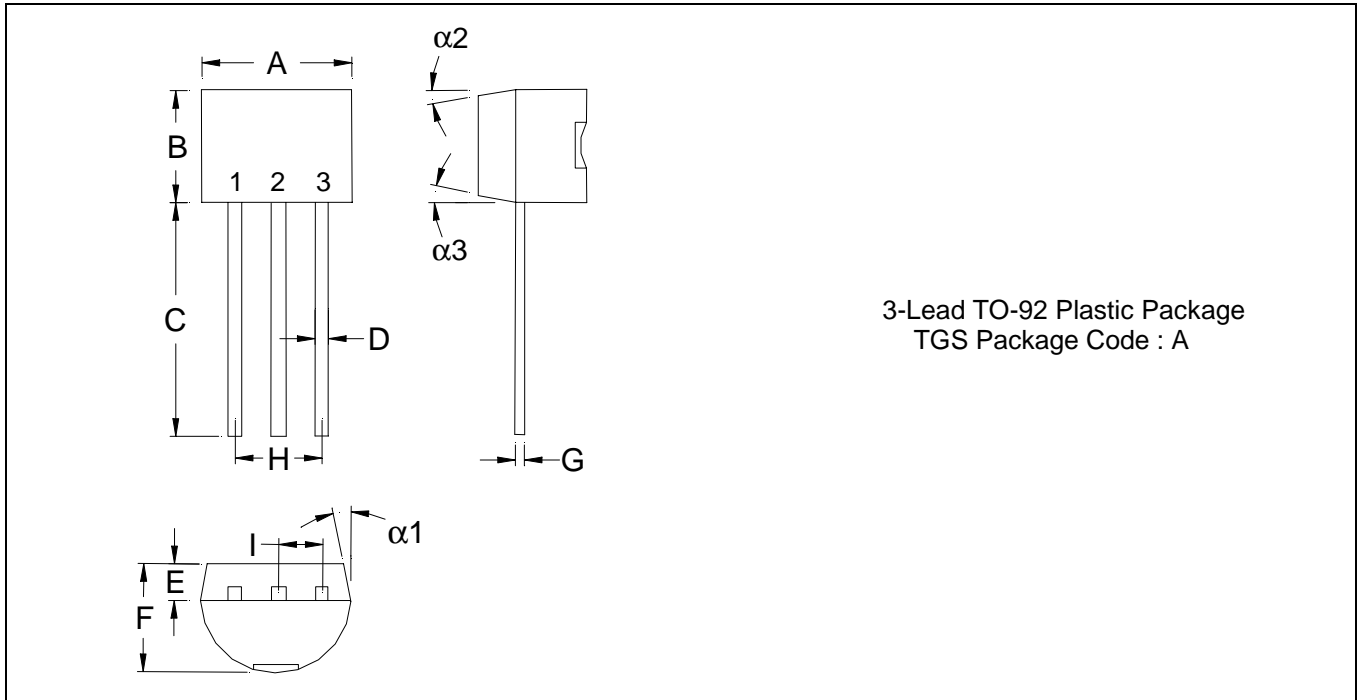


## Characteristics Curve





## TO-92 Dimension



\*:Typical

| DIM | Inches |         | Millimeters |       | DIM        | Inches |         | Millimeters |       |
|-----|--------|---------|-------------|-------|------------|--------|---------|-------------|-------|
|     | Min.   | Max.    | Min.        | Max.  |            | Min.   | Max.    | Min.        | Max.  |
| A   | 0.1704 | 0.1902  | 4.33        | 4.83  | G          | 0.0142 | 0.0220  | 0.36        | 0.56  |
| B   | 0.1704 | 0.1902  | 4.33        | 4.83  | H          | -      | *0.1000 | -           | *2.54 |
| C   | 0.5000 | -       | 12.70       | -     | I          | -      | *0.0500 | -           | *1.27 |
| D   | 0.0142 | 0.0220  | 0.36        | 0.56  | $\alpha 1$ | -      | *5°     | -           | *5°   |
| E   | -      | *0.0500 | -           | *1.27 | $\alpha 2$ | -      | *2°     | -           | *2°   |
| F   | 0.1323 | 0.1480  | 3.36        | 3.76  | $\alpha 3$ | -      | *2°     | -           | *2°   |