



**BC856A, B** TRANSISTOR (PNP)

**BC857A, B,C**

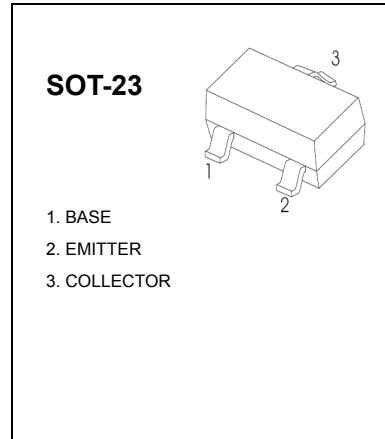
**BC858A, B,C**

**FEATURES**

- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications

**MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

| Symbol           | Parameter                     | Value   | Unit |
|------------------|-------------------------------|---------|------|
| V <sub>CBO</sub> | Collector-Base Voltage        |         |      |
|                  | BC856                         | -80     | V    |
|                  | BC857                         | -50     |      |
| BC858            | -30                           |         |      |
| V <sub>CEO</sub> | Collector-Emitter Voltage     |         |      |
|                  | BC856                         | -65     | V    |
|                  | BC857                         | -45     |      |
| BC858            | -30                           |         |      |
| V <sub>EBO</sub> | Emitter-Base Voltage          | -5      | V    |
| I <sub>C</sub>   | Collector Current –Continuous | -0.1    | A    |
| P <sub>C</sub>   | Collector Power Dissipation   | 200     | mW   |
| T <sub>J</sub>   | Junction Temperature          | 150     | °C   |
| T <sub>stg</sub> | Storage Temperature           | -65-150 | °C   |



**DEVICE MARKING**

BC856A=3A; BC856B=3B;  
BC857A=3E;BC857B=3F;BC857C=3G;  
BC858A=3J; BC858B=3K; BC858C=3L

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

| Parameter  | Symbol               | Test conditions  | Min               | Max               | Unit |
|--|----------------------|--|-------------------|-------------------|------|
| Collector-base breakdown voltage<br>BC856<br>BC857<br>BC858                | V <sub>CBO</sub>     | I <sub>C</sub> = -10μA, I <sub>E</sub> =0  | -80<br>-50<br>-30 |                   | V    |
| Collector-emitter breakdown voltage<br>BC856<br>BC857<br>BC858             | V <sub>CEO</sub>     | I <sub>C</sub> = -10mA, I <sub>B</sub> =0  | -65<br>-45<br>-30 |                   | V    |
| Emitter-base breakdown voltage   | V <sub>EBO</sub>     | I <sub>E</sub> = -1μA, I <sub>C</sub> =0   | -5                |                   | V    |
| Collector cut-off current<br>BC856<br>BC857<br>BC858                       | I <sub>CBO</sub>     | V <sub>CB</sub> = -70 V, I <sub>E</sub> =0<br>V <sub>CB</sub> = -45 V, I <sub>E</sub> =0<br>V <sub>CB</sub> = -25 V, I <sub>E</sub> =0 |                   | -0.1              | μA   |
| Collector cut-off current<br>BC856<br>BC857<br>BC858                       | I <sub>CEO</sub>     | V <sub>CE</sub> = -60 V, I <sub>B</sub> =0<br>V <sub>CE</sub> = -40 V, I <sub>B</sub> =0<br>V <sub>CE</sub> = -25 V, I <sub>B</sub> =0 |                   | -0.1              | μA   |
| Emitter cut-off current  | I <sub>EBO</sub>     | V <sub>EB</sub> = -5 V, I <sub>C</sub> =0  |                   | -0.1              | μA   |
| DC current gain<br>BC856A, 857A,858A<br>BC856B, 857B,858B<br>BC857C,BC858C | h <sub>FE</sub>      | V <sub>CE</sub> = -5V,I <sub>C</sub> = -2mA  | 125<br>220<br>420 | 250<br>475<br>800 |      |
| Collector-emitter saturation voltage                                       | V <sub>CE(sat)</sub> | I <sub>C</sub> =-100mA,I <sub>B</sub> = -5 mA  |                   | -0.5              | V    |
| Base-emitter saturation voltage  | V <sub>BE(sat)</sub> | I <sub>C</sub> = -100mA, I <sub>B</sub> = -5mA   |                   | -1.1              | V    |
| Transition frequency   | f <sub>T</sub>       | V <sub>CE</sub> = -5 V, I <sub>C</sub> = -10mA<br>f=100MHz   | 100               |                   | MHz  |
| Collector capacitance  | C <sub>ob</sub>      | V <sub>CB</sub> =-10V, f=1MHz  |                   | 4.5               | pF   |

