



**SILICON PLASTIC POWER TRANSISTOR  
PNP BD244A/B/C**

**6A 65W**

**Technical Data**

...designed for use in general-purpose switching and amplifier applications.

- ☞ Collector-Emitter Saturation Voltage-  
 $V_{CE}=1.5Vdc(Max)@I_C=6Adc$
- ☞ Collector-Emitter Sustaining Voltage-  
 $V_{CEO}(sus)=60/80/100Vdc(Min)$  BD244A/B/C
- ☞ TO-220 Package

**MAXIMUM RATINGS**

| Rating   | Symbol         | BD244A      | BD244B | BD244C | Unit  |
|--|----------------|-------------|--------|--------|-------|
| Collector- Emitter Voltage                       | $V_{CEO}$      | 60          | 80     | 100    | Vdc   |
| Collector – Base Voltage                         | $V_{CB}$       | 60          | 80     | 100    | Vdc   |
| Emitter Base Voltage                             | $V_{EB}$       | 5           |        |        | Vdc   |
| Collector Current – Continuous                   | $I_C$          | 6           |        |        | Adc   |
| Peak   |                | 10          |        |        |       |
| Base Current                                     | $I_B$          | 2           |        |        | Adc   |
| Total Power Dissipation @ TC = 25°C              | PD             | 65          |        |        | Watts |
| Derate above 25°C                                |                | 0.52        |        |        | W/°C  |
| Operating and Storage junction Temperature Range | $T_j, T_{stg}$ | -65 to +150 |        |        | °C    |

**THERMAL CHARACTERISTICS**

| Characteristic                      | Symbol     | Max. | Unit |
|-------------------------------------|------------|------|------|
| Thermal resistance junction to case | $R_{thjc}$ | 1.92 | °C/W |



**ELECTRICAL CHARACTERISTICS : [ T<sub>c</sub> = 25 °C unless otherwise noted ]**

| Characteristic   | Symbol                | Min             | Typ | Max               | Unit |
|--|-----------------------|-----------------|-----|-------------------|------|
| <b>* OFF CHARACTERISTICS :</b>   |                       |                 |     |                   |      |
| Collector–Emitter Sustaining Voltage(1)<br>[ I <sub>c</sub> =30 mAdc, I <sub>B</sub> = 0 ]   | V <sub>CEO(sus)</sub> | 60<br>80<br>100 |     |                   | Vdc  |
| Collector Cutoff Current<br>[ V <sub>CE</sub> = 30 Vdc, I <sub>B</sub> = 0 ]<br>[ V <sub>CE</sub> =60Vdc,I <sub>B</sub> =0]  | I <sub>CE0</sub>      |                 |     | 0.7<br>0.7        | mAdc |
| Collector Cutoff Current<br>[ V <sub>CE</sub> =60Vdc, V <sub>BE</sub> =0]<br>[ V <sub>CE</sub> =80Vdc, V <sub>BE</sub> =0]<br>[ V <sub>CE</sub> =100Vdc, V <sub>BE</sub> =0] | I <sub>CES</sub>      |                 |     | 400<br>400<br>400 | ⊛Adc |
| Emitter Cutoff Current<br>[ V <sub>EB</sub> =5.0 Vdc , I <sub>c</sub> = 0 ]  | I <sub>EBO</sub>      |                 |     | 1                 | mAdc |
| <b>* ON CHARACTERISTICS (1):</b>   |                       |                 |     |                   |      |
| DC Current Gain<br>[ I <sub>c</sub> = 0.3Adc , V <sub>CE</sub> = 4.0 Vdc ]<br>[ I <sub>c</sub> = 3Adc , V <sub>CE</sub> = 4.0 Vdc ]  | h <sub>FE</sub>       | 30<br>15        |     |                   |      |
| Collector-Emitter Saturation Voltage<br>[ I <sub>c</sub> = 6Adc , I <sub>B</sub> =1Adc ]   | V <sub>CE(sat)</sub>  |                 |     | 1.5               | Vdc  |
| Base-Emitter on Voltage<br>[ I <sub>c</sub> =6 Adc , V <sub>CE</sub> = 4V]   | V <sub>BE(on)</sub>   |                 |     | 2.0               | Vdc  |
| <b>DYNAMIC CHARACTERISTICS :</b>   |                       |                 |     |                   |      |
| Current Gain – Bandwidth Product<br>[I <sub>c</sub> =0.5Adc,V <sub>CE</sub> =10Vdc,f <sub>test</sub> =1.0 MHz ]  | f <sub>T</sub>        | 3               |     |                   | MHz  |
| Small-Signal Current Gain<br>[ I <sub>C</sub> =0.5 Adc, V <sub>CE</sub> =10 Vdc, f=1kHz]   | h <sub>fe</sub>       | 20              |     |                   |      |

- (1) Pulse Test : Pulse Width <300μs , Duty Cycle < 2.0%