

**/ Descriptions**

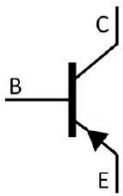
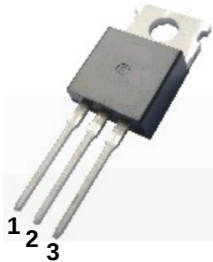
Silicon PNP transistor in a TO-220 Plastic Package.

**/ Features**

High  $I_C$ , high  $P_C$ , complement to BD543.

**/ Applications**

Medium power amplifier applications.

**/ Equivalent Circuit****/ Pinning**

PIN1 Base      PIN 2 Collector      PIN 3 Emitter

**/  $h_{FE}$  Classifications & Marking**

See Marking Instructions.

**/ Absolute Maximum Ratings(Ta=25 )**

| Parameter                                        | Symbol                                 |        | Rating  | Unit |
|--------------------------------------------------|----------------------------------------|--------|---------|------|
| Collector to Base Voltage                        | V <sub>CBO</sub>                       | BD544  | -40     | V    |
|                                                  |                                        | BD544A | -60     | V    |
|                                                  |                                        | BD544B | -80     | V    |
|                                                  |                                        | BD544C | -100    | V    |
| Collector to Emitter Voltage                     | V <sub>CEO</sub>                       | BD544  | -40     | V    |
|                                                  |                                        | BD544A | -60     | V    |
|                                                  |                                        | BD544B | -80     | V    |
|                                                  |                                        | BD544C | -100    | V    |
| Emitter to Base Voltage                          | V <sub>EBO</sub>                       |        | -5.0    | V    |
| Collector Current - Continuous                   | I <sub>C</sub>                         |        | -8.0    | A    |
| Peak Collector Current                           | I <sub>CM</sub>                        |        | -10     | A    |
| Collector Power Dissipation                      | P <sub>C</sub>                         |        | 2.0     | W    |
|                                                  | P <sub>C</sub> (T <sub>c</sub> =25 °C) |        | 70      | W    |
| Junction Temperature                             | T <sub>j</sub>                         |        | -55 150 |      |
| Storage Temperature Range                        | T <sub>sag</sub>                       |        | -55 150 |      |
| Lead temperature 3.2 mm from case for 10 seconds | T <sub>L</sub>                         |        | 260     |      |

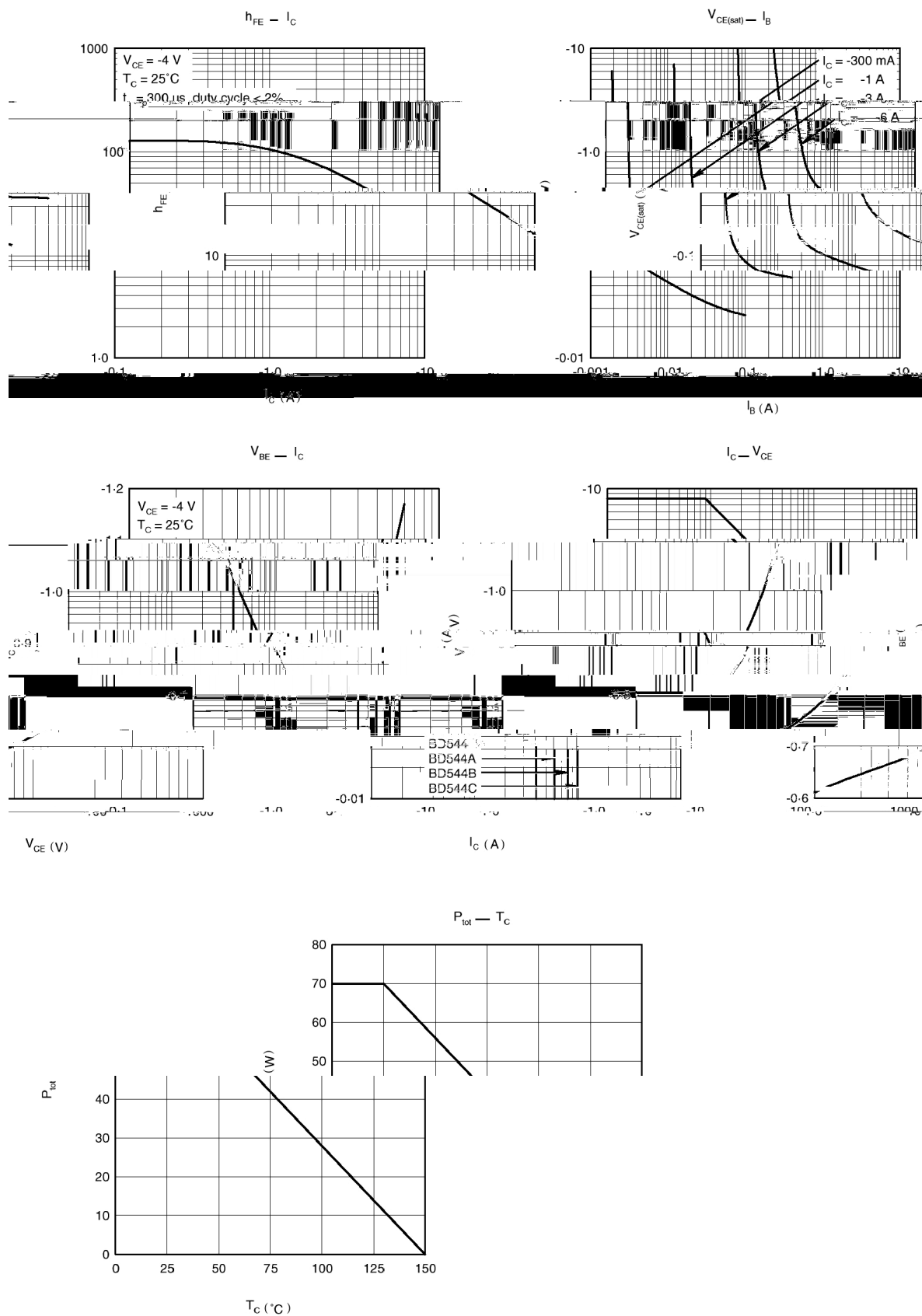
**/ Electrical Characteristics(Ta=25 )**

| Parameter                              | Symbol    | Test Conditions         | Min            | Typ        | Max  | Unit |
|----------------------------------------|-----------|-------------------------|----------------|------------|------|------|
| Collector to Emitter Breakdown Voltage | $V_{CEO}$ | $I_C=-30mA \quad I_B=0$ | -40            |            |      | V    |
|                                        |           |                         | -60            |            |      |      |
|                                        |           |                         | -80            |            |      |      |
|                                        |           |                         | -100           |            |      |      |
| Collector Cut-Off Current              | $I_{CEO}$ | BD544<br>BD544A         | $V_{CE}=-30V$  | $I_B=0$    | -0.7 | mA   |
|                                        |           | BD544B<br>BD544C        | $V_{CE}=-60V$  | $I_B=0$    |      |      |
|                                        |           |                         |                |            |      |      |
| Collector Cut-Off Current              | $I_{CES}$ | BD544                   | $V_{CE}=-40V$  | $V_{EB}=0$ | -0.4 | mA   |
|                                        |           | BD544A                  | $V_{CE}=-60V$  | $V_{EB}=0$ |      |      |
|                                        |           | BD544B                  | $V_{CE}=-80V$  | $V_{EB}=0$ |      |      |
|                                        |           | BD544C                  | $V_{CE}=-100V$ | $V_{EB}=0$ |      |      |

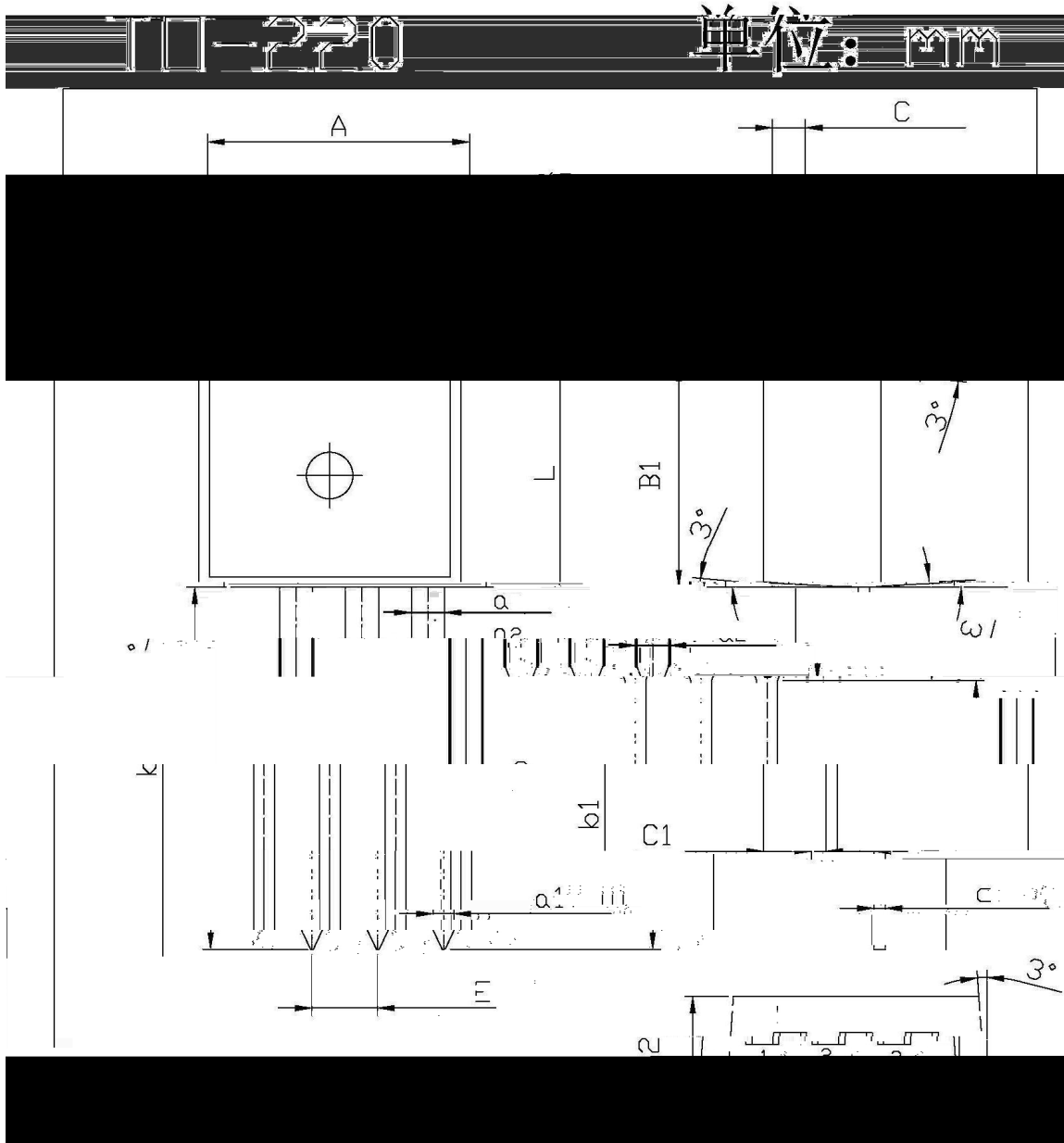
**/ Electrical Characteristics(Ta=25 )**

| Parameter                               | Symbol        | Test Conditions            | Min | Typ | Max  | Unit |
|-----------------------------------------|---------------|----------------------------|-----|-----|------|------|
| Emitter Cut-Off Current                 | $I_{EBO}$     | $V_{EB}=-5.0V$ $I_C=0$     |     |     | -1.0 | mA   |
| DC Current Gain                         | $h_{FE(1)}$   | $V_{CE}=-4.0V$ $I_C=-1.0A$ | 60  |     |      |      |
|                                         | $h_{FE(2)}$   | $V_{CE}=-4.0V$ $I_C=-3.0A$ | 40  |     | 200  |      |
|                                         | $h_{FE(3)}$   | $V_{CE}=-4.0V$ $I_C=-5.0A$ | 15  |     |      |      |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_B=-0.3A$ $I_C=-3.0A$    |     |     | -0.6 | V    |
|                                         |               | $I_B=-1.0A$ $I_C=-5.0A$    |     |     | -0.6 | V    |
|                                         |               | $I_B=-1.6A$ $I_C=-8.0A$    |     |     | -1.0 | V    |
| Base to Emitter Voltage                 | $V_{BE}$      | $V_{CE}=-4.0V$ $I_C=-5.0A$ |     |     | -1.4 | V    |

**/ Electrical Characteristic Curve**

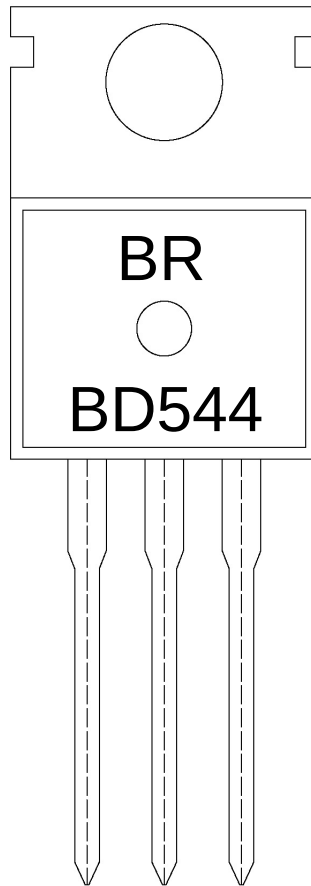


# / Package Dimensions



| Dimensions in Millimeters |      |      | Dimensions in Millimeters |      |     |
|---------------------------|------|------|---------------------------|------|-----|
| Symbol                    | Min  | Max  | Symbol                    | Min  | Max |
| A                         | 9.8  | 10.2 | C                         | 1.2  | 1.4 |
| B                         | 3.50 | 3.64 | B1                        | 6.2  | 6.7 |
| C1                        | 1.2  | 1.4  | a                         | 0.4  | 0.6 |
| a                         | 0.4  | 0.6  | b1                        | 1.22 | 1.3 |
| b1                        | 1.22 | 1.3  | C1                        | 1.25 | 1.3 |
| C1                        | 1.25 | 1.3  |                           |      |     |

**/ Marking Instructions**



Note:

BR: Company Code

BD544: Product Type.

\*\*\*: Lot No. Code, code change with Lot No.



- 1            25   150            60   90sec;

2            255   5            5   0.5sec;

3
- Note:

1.Preheating:25~150   , Time:60~90sec.

2.Peak Temp.:255   5   , Duration:5   0.5sec.