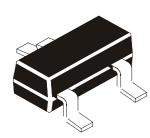
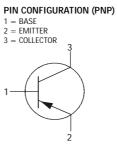


# PNP EPITAXIAL PLANAR SILICON TRANSISTOR

### CMBT857 SOT23





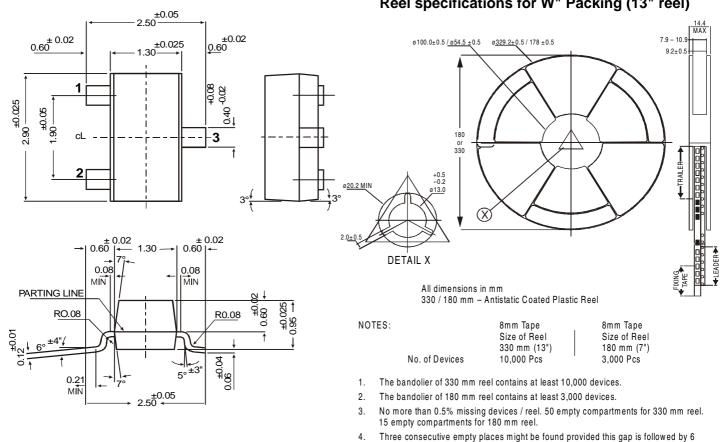
MARKING: AS BELOW

#### **ABSOLUTE MAXIMUM RATINGS**

| DESCRIPTION                            | SYMBOL        |                          | VALUE       |     |      | UNIT  |  |
|--|---------------|--------------------------|-------------|-----|------|-------|--|
|  |               |                          |             |     |      |       |  |
| Collector -Base Voltage                | VCBO          |                          | 60          |     |      | V     |  |
| Collector -Emitter Voltage             | VCEO          |                          | 50          |     |      | V     |  |
| Emitter Base Voltage                   | VEBO          |                          | 6.0         |     |      | V     |  |
| Collector Current                      | IC            |                          | 200         |     |      | mA    |  |
| Collector Power Dissipation            | PC            |                          | 200         |     |      | mW    |  |
| Junction Temperature                   | Tj            |                          | 125         |     |      | deg C |  |
| Storage Temperature                    | Tstg          |                          | -55 to +125 |     |      | deg C |  |
| <b>ELECTRICAL CHARACTERISTICS (Ta=</b> | 25 deg C unle | ess otherwise specified) |             |     |      |       |  |
| DESCRIPTION                            | SYMBOL        | TEST CONDITION           | MIN         | ΤΥΡ | MAX  | UNIT  |  |
| Collector -Emitter Voltage             | VCEO          | IC=100uA, IB=0           | 50          | -   | -    | V     |  |
| Collector Cut off Current              | ICBO          | VCB=60V, IE=0            | -           | -   | 100  | nA    |  |
| Emitter Cut off Current                | IEBO          | VEB=6V, IC=0             | -           | -   | 100  | nA    |  |
| DC Current Gain                        | hFE(1)        | IC=1mA,VCE=6V            | 150         | -   | 500  |       |  |
|  | hFE(2)        | IC=0.1mA,VCE=6V          | 90          | -   | -    |       |  |
| Collector Emitter Saturation Voltage   | VCE(Sat)      | IC=100mA,IB=10mA         | -           | -   | 0.30 | V     |  |
| Base Emitter Saturation Voltage        | VBE(Sat)      | IC=100mA,IB=10mA         | -           | -   | 1.0  | V     |  |
| Dynamic Characteristics                |               |                          |             |     |      |       |  |
| Transition Frequency                   | ft            | VCE=6V,IC=10mA,          | -           | 200 | -    | MHz   |  |
| Collector Output Capacitance           | Cob           | VCB=6V, IE=0             | -           | 4.0 | -    | pF    |  |
|  |               | f=1MHz                   |             |     |      |       |  |
| Noise Figure                           | NF            | VCE=6V, IE=0.3mA         | -           | -   | 20   | dB    |  |
| -                                      |               | f=100Hz, Rg=10kohms      |             |     |      |       |  |
| CLASSIFICATION                         | E             | F                        |             |     |      |       |  |
| hFE(1)                                 | 150-300       | 250-500                  |             |     |      |       |  |
| MARKING                                | PE            | PF                       |             |     |      |       |  |

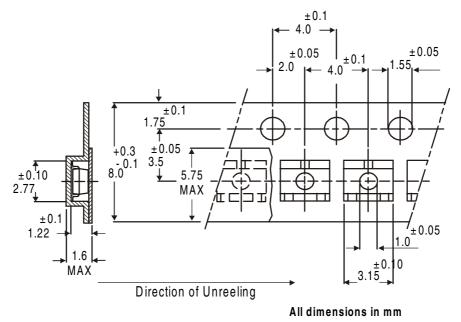
## SOT-23 Formed SMD Package

### SOT-23 Package Reel Information Reel specifications for W" Packing (13" reel)



- Three consecutive empty places might be found provided this gap is followed by 6 consecutive devices.
- The carrier tape (leader) starts with at least 75 empty positions (equivalent to 330 mm). In order to fix the carrier tape a self adhesive tape of 20 to 50 mm is applied. At the end of the bandolier at least 40 empty positions (equivalent to 160 mm) are there.

## **Tape Specification for SOT-23 Surface Mount Device**



## **Packing Detail**

| PACKAGE    | STANDARD PACK       |                | INNER CARTON BOX                                     |                         | OUTER CARTON BOX  |                            |                            |  |
|------------|---------------------|----------------|--|-------------------------|---|----------------------------|----------------------------|--|
|            | Details             | Net Weight/Qty | Size   | Qty                     | Size  | Qty                        | Gr Wt                      |  |
| SOT-23 T&R | 3K/reel<br>10K/reel | 5 1            | 3" x 7.5" x 7.5"<br>9" x 9" x 9"<br>13" x 13" x 0.5" | 12.0K<br>51.0K<br>10.0K | 17" x 15" x 13.5"<br>19" x 19" x 19"<br>17" x 15" x 13.5" | 192.0K<br>408.0K<br>300.0K | 12 kgs<br>28 kgs<br>16 kgs |  |

### Notes

#### Disclaimer

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Data Sheet