

# 2SD1207

## Electrical Characteristics at Ta = 25°C

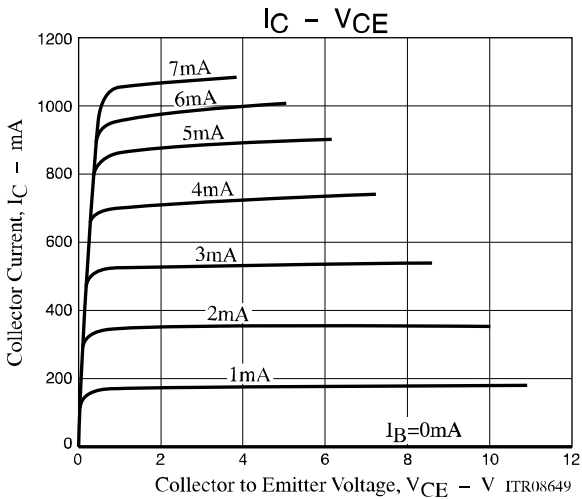
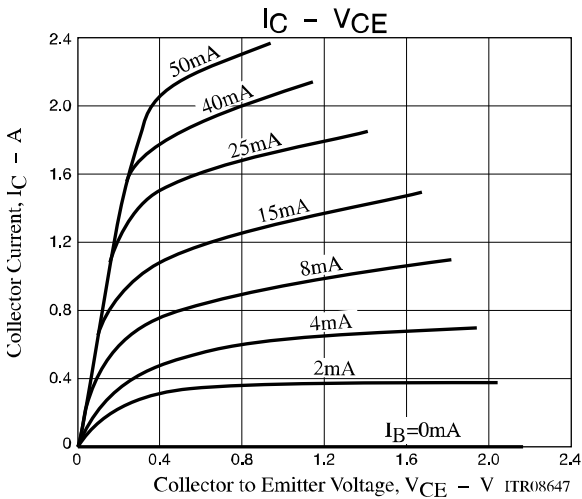
| Parameter                               | Symbol                | Conditions                                 | Ratings |      |     | Unit |
|-----------------------------------------|-----------------------|--------------------------------------------|---------|------|-----|------|
|                                         |                       |                                            | min     | typ  | max |      |
| Collector Cutoff Current                | ICBO                  | V <sub>CB</sub> =50V, I <sub>E</sub> =0A   |         |      | 0.1 | μA   |
| Emitter Cutoff Current                  | IEBO                  | V <sub>EB</sub> =4V, I <sub>C</sub> =0A    |         |      | 0.1 | μA   |
| DC Current Gain                         | h <sub>FE</sub> 1     | V <sub>CE</sub> =2V, I <sub>C</sub> =100mA | 140     |      | 400 |      |
|                                         | h <sub>FE</sub> 2     | V <sub>CE</sub> =2V, I <sub>C</sub> =1.5A  | 40      |      |     |      |
| Gain-Bandwidth Product                  | f <sub>T</sub>        | V <sub>CE</sub> =10V, I <sub>C</sub> =50mA |         | 150  |     | MHz  |
| Output Capacitance                      | Cob                   | V <sub>CB</sub> =10V, f=1MHz               |         | 12   |     | pF   |
| Collector to Emitter Saturation Voltage | V <sub>CE</sub> (sat) | I <sub>C</sub> =1A, I <sub>B</sub> =50mA   |         | 0.15 | 0.4 | V    |
| Base to Emitter Saturation Voltage      | V <sub>BE</sub> (sat) | I <sub>C</sub> =1A, I <sub>B</sub> =50mA   |         | 0.9  | 1.2 | V    |
| Collector to Base Breakdown Voltage     | V <sub>(BR)</sub> CBO | I <sub>C</sub> =10μA, I <sub>E</sub> =0A   | 60      |      |     | V    |
| Collector to Emitter Breakdown Voltage  | V <sub>(BR)</sub> CEO | I <sub>C</sub> =1mA, R <sub>BE</sub> =∞    | 50      |      |     | V    |
| Emitter to Base Breakdown Voltage       | V <sub>(BR)</sub> EBO | I <sub>E</sub> =10μA, I <sub>C</sub> =0A   | 6       |      |     | V    |

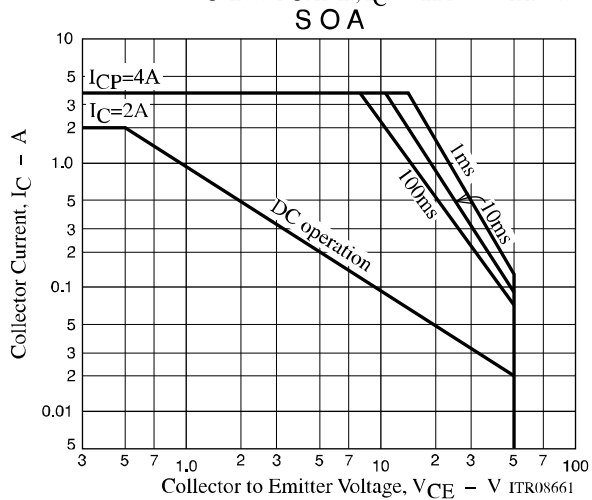
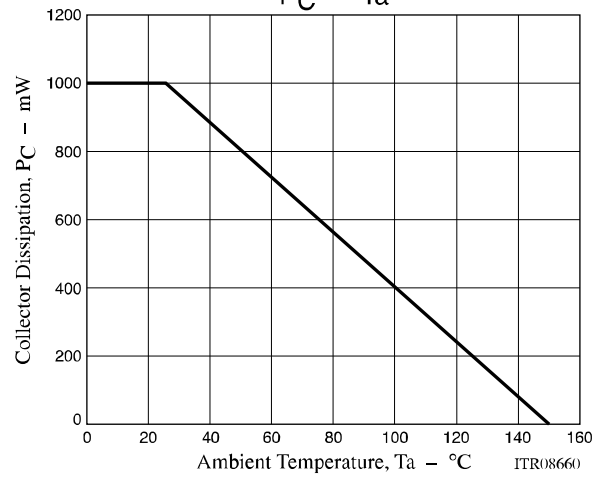
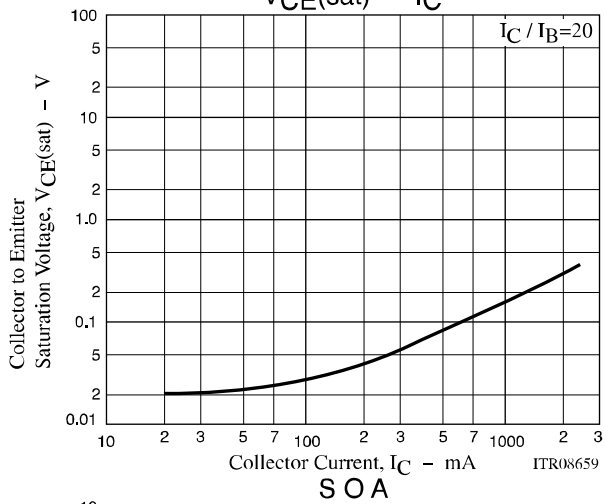
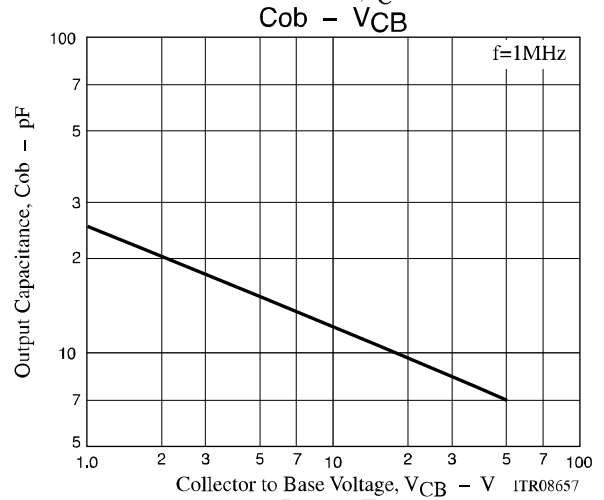
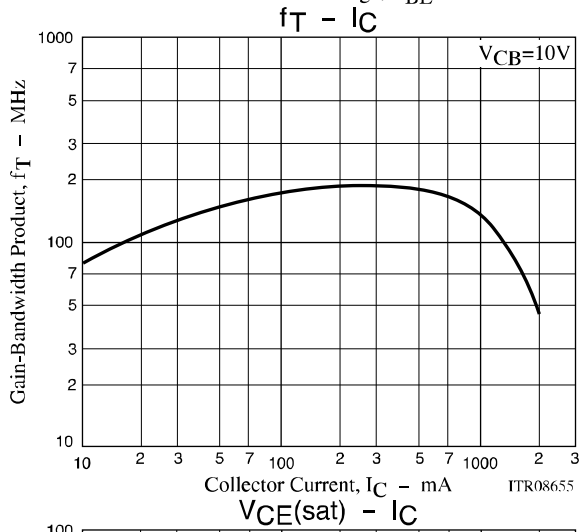
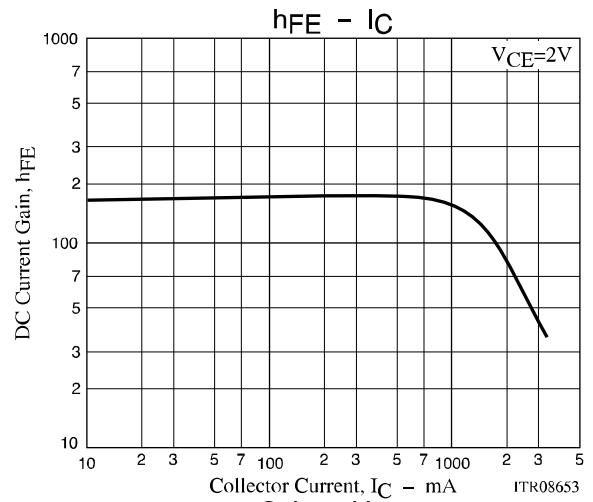
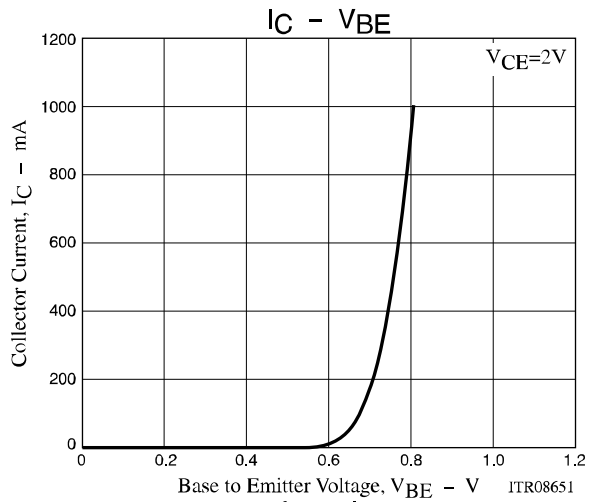
\*: The 2SD1207 is graded as follows by h<sub>FE</sub> at 100mA :

| Rank            | S          | T          |
|-----------------|------------|------------|
| h <sub>FE</sub> | 140 to 280 | 200 to 400 |

## Ordering Information

| Device      | Package | Shipping      | Memo    |
|-------------|---------|---------------|---------|
| 2SD1207S    | MP      | 500pcs./bag   | Pb Eree |
| 2SD1207S-AE |         | 1,000pcs./box |         |
| 2SD1207T    |         | 500pcs./bag   |         |
| 2SD1207T-AE |         | 1,000pcs./box |         |

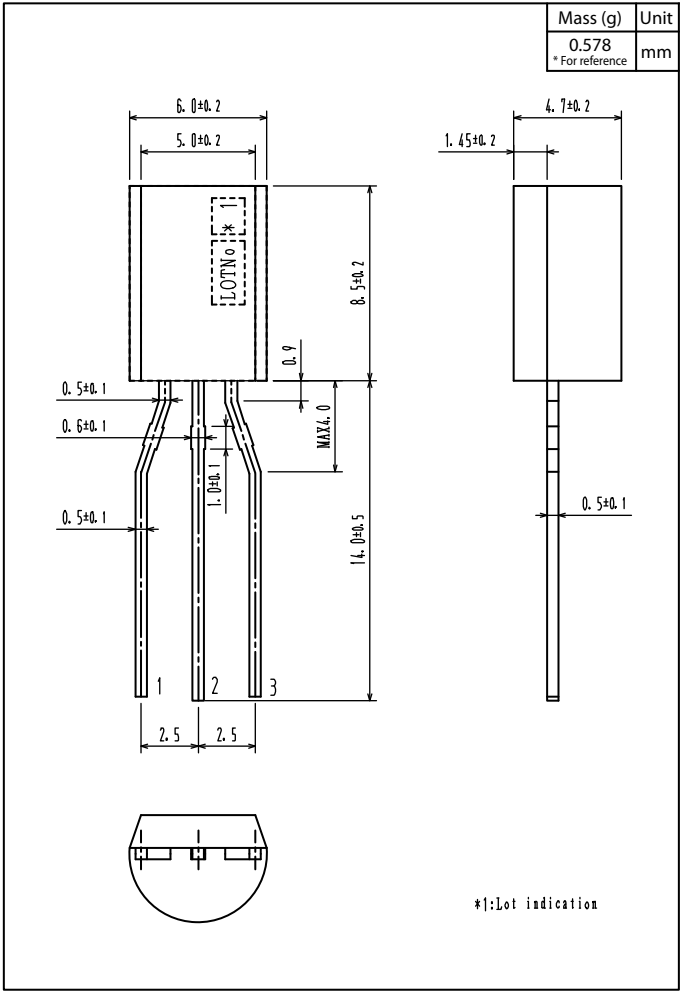


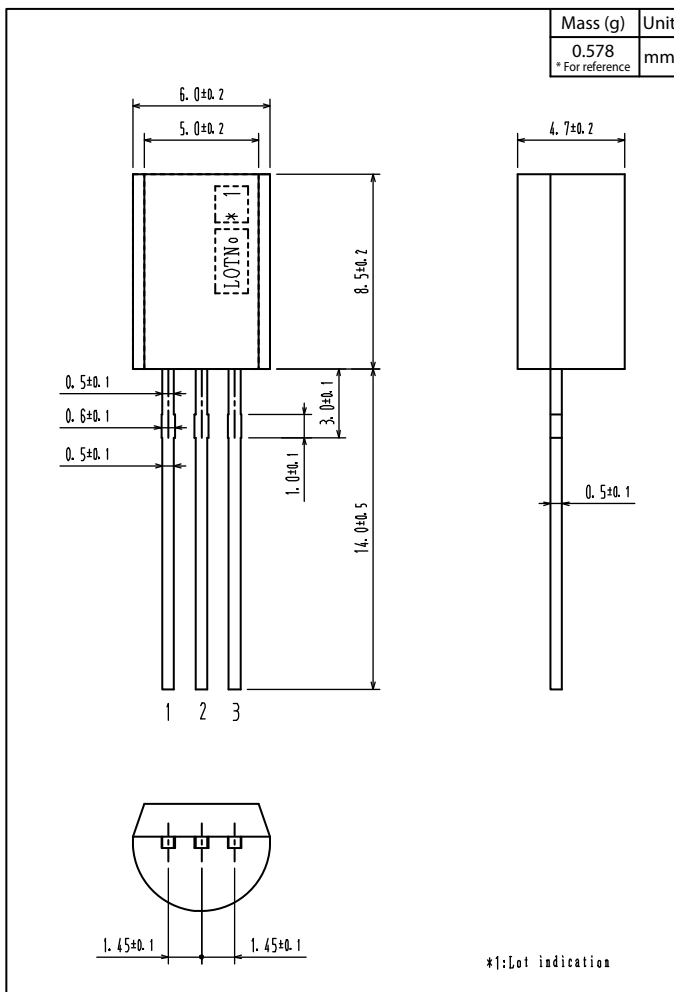


Outline Drawing

2SD1207S-AE

2SD1207T-AE





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