

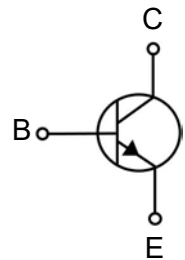
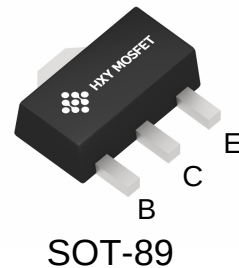


## Features

- Switching and amplification in high voltage  
Applications such as telephony
- Low current(max. 600mA)
- High voltage(max.180V)

## Package Marking and Ordering Information

| Product ID | Pack   | Marking | Qty(PCS) |
|------------|--------|---------|----------|
| CXT5551-TP | SOT-89 | 1G6     | 1000     |



## Maximum Ratings (Ta=25°C unless otherwise noted)

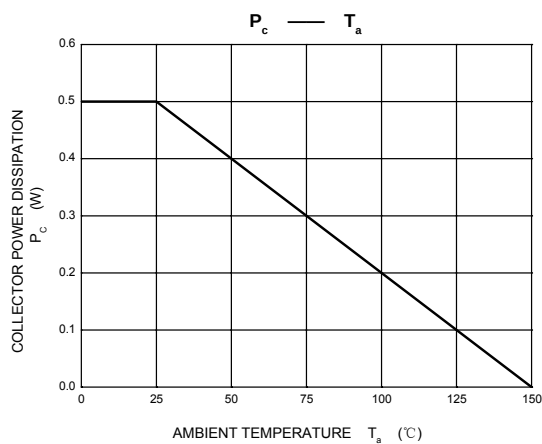
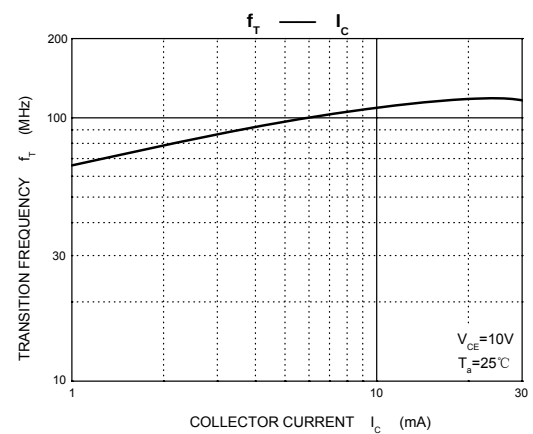
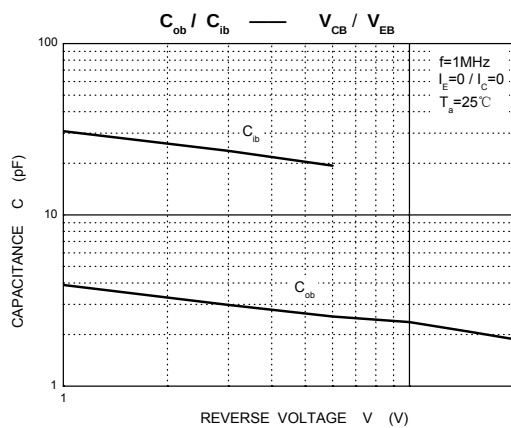
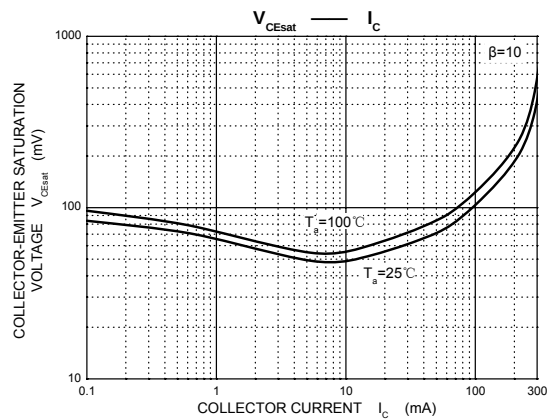
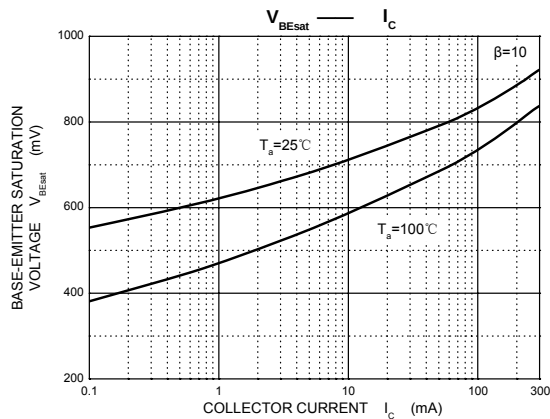
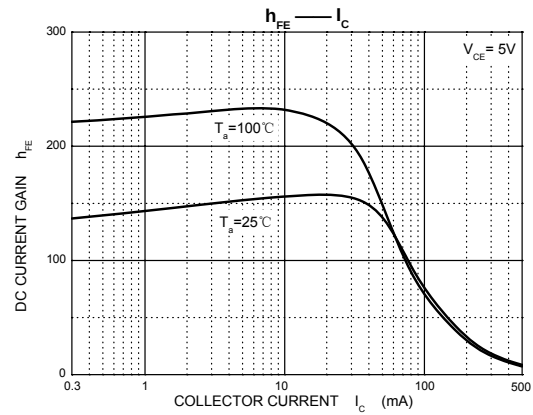
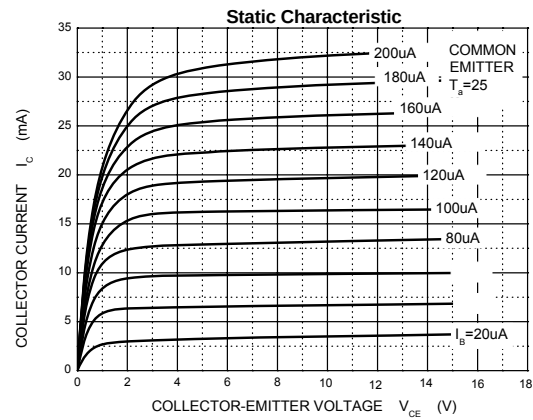
| Symbol                            | Parameter                                        | Value   | Unit |
|-----------------------------------|--------------------------------------------------|---------|------|
| V <sub>CBO</sub>                  | Collector-Base Voltage                           | 180     | V    |
| V <sub>CEO</sub>                  | Collector-Emitter Voltage                        | 160     | V    |
| V <sub>EBO</sub>                  | Emitter-Base Voltage                             | 6       | V    |
| I <sub>C</sub>                    | Collector Current -Continuous                    | 0.6     | A    |
| P <sub>C</sub>                    | Collector Power Dissipation                      | 0.5     | W    |
| T <sub>J</sub> , T <sub>stg</sub> | Operation Junction and Storage Temperature Range | -55~150 | °C   |

## Electrical Characteristics(Ta=25°C unless otherwise specified)

| Parameter                            | Symbol               | Test conditions                                                                  | Min | Typ | Max  | Unit |
|--------------------------------------|----------------------|----------------------------------------------------------------------------------|-----|-----|------|------|
| Collector-base breakdown voltage     | V <sub>(BR)CBO</sub> | I <sub>C</sub> =100μ A, I <sub>E</sub> =0                                        | 180 |     |      | V    |
| Collector-emitter breakdown voltage  | V <sub>(BR)CEO</sub> | I <sub>C</sub> =1mA, I <sub>B</sub> =0                                           | 160 |     |      | V    |
| Emitter-base breakdown voltage       | V <sub>(BR)EBO</sub> | I <sub>E</sub> =10 μ A, I <sub>C</sub> =0                                        | 6   |     |      | V    |
| Collector cut-off current            | I <sub>CBO</sub>     | V <sub>CB</sub> =120V, I <sub>E</sub> =0                                         |     |     | 50   | nA   |
| Emitter cut-off current              | I <sub>EBO</sub>     | V <sub>EB</sub> =4V, I <sub>C</sub> =0                                           |     |     | 50   | nA   |
| DC current gain                      | h <sub>FE(1)</sub>   | V <sub>CE</sub> =5V, I <sub>C</sub> =1mA                                         | 80  |     |      |      |
|                                      | h <sub>FE(2)</sub>   | V <sub>CE</sub> =5V, I <sub>C</sub> =10mA                                        | 100 |     | 300  |      |
|                                      | h <sub>FE(3)</sub>   | V <sub>CE</sub> =5V, I <sub>C</sub> =50mA                                        | 30  |     |      |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =10mA, I <sub>B</sub> =1mA                                        |     |     | 0.15 | V    |
|                                      | V <sub>CE(sat)</sub> | I <sub>C</sub> =50mA, I <sub>B</sub> =5mA                                        |     |     | 0.2  | V    |
| Base-emitter voltage                 | V <sub>BE(sat)</sub> | I <sub>C</sub> =10mA, I <sub>B</sub> =1mA                                        |     |     | 1    | V    |
|                                      | V <sub>BE(sat)</sub> | I <sub>C</sub> =50mA, I <sub>B</sub> =5mA                                        |     |     | 1    | V    |
| Transition frequency                 | f <sub>T</sub>       | V <sub>CE</sub> =10V, I <sub>C</sub> =10mA, f=100MHz                             | 100 |     |      | MHz  |
| Collector output capacitance         | C <sub>ob</sub>      | V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz                                  |     |     | 6    | pF   |
| Noise figure                         | NF                   | V <sub>CE</sub> =5V, I <sub>C</sub> =0.2mA, f=10Hzto15.7KHZ, R <sub>s</sub> =10Ω |     |     | 8    | dB   |

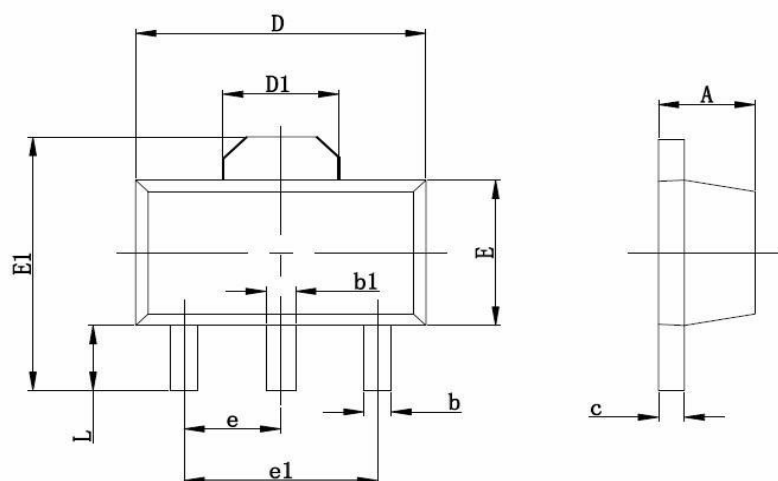


## Typical Characteristics





## SOT-89 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 1.400                     | 1.600 | 0.055                | 0.063 |
| b      | 0.320                     | 0.520 | 0.013                | 0.020 |
| b1     | 0.400                     | 0.580 | 0.016                | 0.023 |
| c      | 0.350                     | 0.440 | 0.014                | 0.017 |
| D      | 4.400                     | 4.600 | 0.173                | 0.181 |
| D1     | 1.550 REF.                |       | 0.061 REF.           |       |
| E      | 2.300                     | 2.600 | 0.091                | 0.102 |
| E1     | 3.940                     | 4.250 | 0.155                | 0.167 |
| e      | 1.500 TYP.                |       | 0.060 TYP.           |       |
| e1     | 3.000 TYP.                |       | 0.118 TYP.           |       |
| L      | 0.900                     | 1.200 | 0.035                | 0.047 |



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