

# BC369

## PNP Silicon Epitaxial Planar Transistor

### Applications

- General purpose switching and amplification
- Power application such as audio output stages



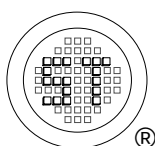
1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                 | Symbol     | Value         | Unit             |
|---------------------------|------------|---------------|------------------|
| Collector Base Voltage    | $-V_{CBO}$ | 32            | V                |
| Collector Emitter Voltage | $-V_{CEO}$ | 20            | V                |
| Emitter Base Voltage      | $-V_{EBO}$ | 5             | V                |
| Collector Current (DC)    | $-I_C$     | 1             | A                |
| Peak Collector Current    | $-I_{CM}$  | 2             | A                |
| Total Power Dissipation   | $P_{tot}$  | 625           | mW               |
| Junction Temperature      | $T_j$      | 150           | $^\circ\text{C}$ |
| Storage Temperature Range | $T_S$      | - 55 to + 150 | $^\circ\text{C}$ |

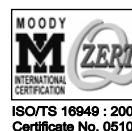
### Characteristics at $T_a = 25^\circ\text{C}$

| Parameter                                                                                                                                                                     | Symbol                           | Min.           | Max.          | Unit        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------|---------------|-------------|
| DC Current Gain<br>at $-V_{CE} = 10\text{ V}$ , $-I_C = 5\text{ mA}$<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 500\text{ mA}$<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 1\text{ A}$ | $h_{FE}$<br>$h_{FE}$<br>$h_{FE}$ | 50<br>85<br>60 | -<br>375<br>- | -<br>-<br>- |
| Collector Base Cutoff Current<br>at $-V_{CB} = 25\text{ V}$                                                                                                                   | $-I_{CBO}$                       | -              | 100           | nA          |
| Emitter Base Cutoff Current<br>at $-V_{EB} = 5\text{ V}$                                                                                                                      | $-I_{EBO}$                       | -              | 100           | nA          |
| Collector Base Breakdown Voltage<br>at $-I_C = 100\text{ }\mu\text{A}$                                                                                                        | $-V_{(BR)CBO}$                   | 32             | -             | V           |
| Collector Emitter Breakdown Voltage<br>at $-I_C = 10\text{ mA}$                                                                                                               | $-V_{(BR)CEO}$                   | 20             | -             | V           |
| Emitter Base Breakdown Voltage<br>at $-I_E = 100\text{ }\mu\text{A}$                                                                                                          | $-V_{(BR)EBO}$                   | 5              | -             | V           |
| Collector Emitter Saturation Voltage<br>at $-I_C = 1\text{ A}$ , $-I_B = 100\text{ mA}$                                                                                       | $-V_{CE(sat)}$                   | -              | 0.5           | V           |
| Base Emitter On Voltage<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 1\text{ A}$                                                                                                    | $-V_{BE(on)}$                    | -              | 1             | V           |
| Gain Bandwidth Product<br>at $-V_{CE} = 5\text{ V}$ , $-I_C = 10\text{ mA}$ , $f = 20\text{ MHz}$                                                                             | $f_T$                            | 40             | -             | MHz         |

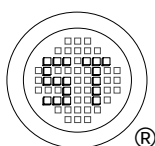
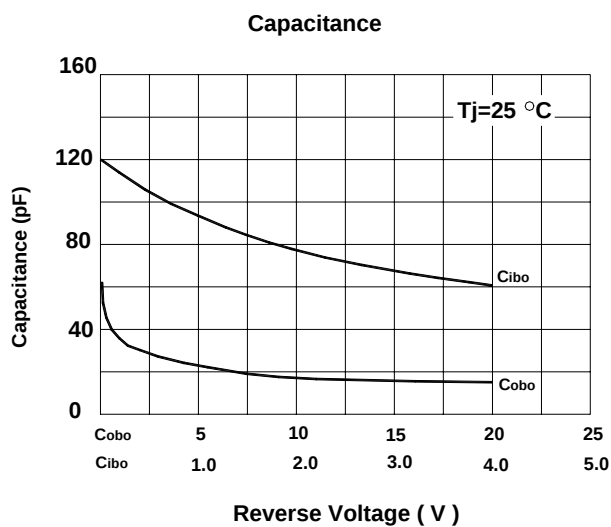
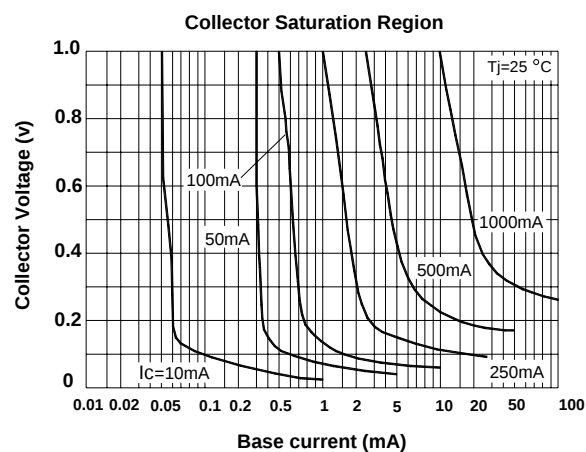
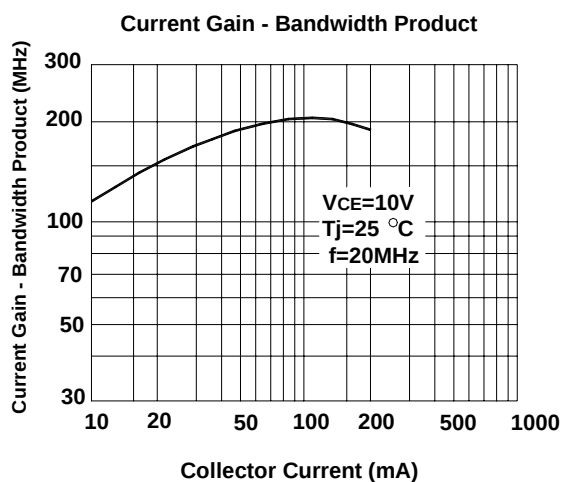
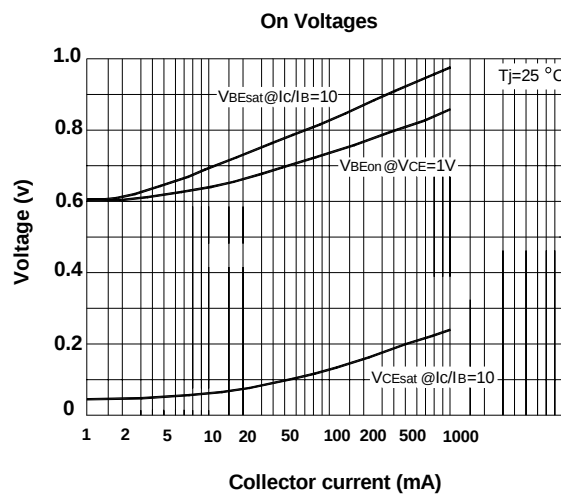
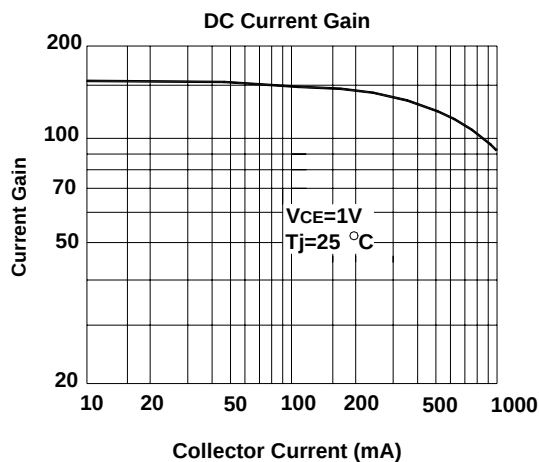


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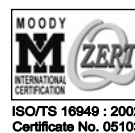


Dated : 27/12/2007



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ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
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