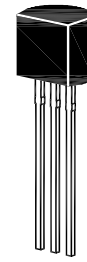


# BC327...BC328

## PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications

These types are subdivided into three groups -16, -25 and -40, according to their DC current gain.



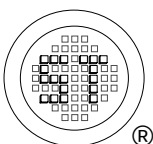
1. Collector 2. Base 3. Emitter  
TO-92 Plastic Package

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

| Parameter                 | Symbol     | BC327         | BC328 | Unit             |
|---------------------------|------------|---------------|-------|------------------|
| Collector Base Voltage    | $-V_{CBO}$ | 50            | 30    | V                |
| Collector Emitter Voltage | $-V_{CEO}$ | 45            | 25    | V                |
| Emitter Base Voltage      | $-V_{EBO}$ | 5             |       | V                |
| Collector Current         | $-I_C$     | 800           |       | mA               |
| Peak Collector Current    | $-I_{CM}$  | 1             |       | A                |
| Total Power Dissipation   | $P_{tot}$  | 625           |       | mW               |
| Junction Temperature      | $T_j$      | 150           |       | $^\circ\text{C}$ |
| Storage Temperature Range | $T_S$      | - 55 to + 150 |       | $^\circ\text{C}$ |

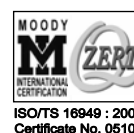
### Characteristics at $T_a = 25^\circ\text{C}$

| Parameter                                                                                         | Symbol                         | Min.     | Typ.   | Max.       | Unit |   |
|---------------------------------------------------------------------------------------------------|--------------------------------|----------|--------|------------|------|---|
| DC Current Gain<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 100\text{ mA}$                             | Current Gain Group<br>$h_{FE}$ | -16      | 100    | -          | 250  | - |
|                                                                                                   |                                | -25      | 160    | -          | 400  | - |
|                                                                                                   |                                | -40      | 250    | -          | 630  | - |
| at $-V_{CE} = 1\text{ V}$ , $-I_C = 300\text{ mA}$                                                |                                | -16      | 60     | -          | -    | - |
|                                                                                                   |                                | -25      | 100    | -          | -    | - |
|                                                                                                   |                                | -40      | 170    | -          | -    | - |
| Collector Base Cutoff Current<br>at $-V_{CB} = 45\text{ V}$<br>at $-V_{CB} = 25\text{ V}$         | $-I_{CBO}$                     | -        | -      | 100<br>100 | nA   |   |
| Collector Base Breakdown Voltage<br>at $-I_C = 100\text{ }\mu\text{A}$                            | $-V_{(BR)CBO}$                 | 50<br>30 | -<br>- | -<br>-     | V    |   |
| Collector Emitter Breakdown Voltage<br>at $-I_C = 10\text{ mA}$                                   | $-V_{(BR)CEO}$                 | 45<br>25 | -<br>- | -<br>-     | 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 $-I_C = 500\text{ mA}$ , $-I_B = 50\text{ mA}$         | $-V_{CE(sat)}$                 | -        | -      | 0.7        | V    |   |
| Base Emitter On Voltage<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 300\text{ mA}$                     | $-V_{BE(on)}$                  | -        | -      | 1.2        | V    |   |
| Gain Bandwidth Product<br>at $-V_{CE} = 5\text{ V}$ , $-I_C = 10\text{ mA}$ , $f = 50\text{ MHz}$ | $f_T$                          | -        | 100    | -          | MHz  |   |
| Collector Base Capacitance<br>at $-V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$                     | $C_{CBO}$                      | -        | 12     | -          | pF   |   |



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Dated : 27/12/2007

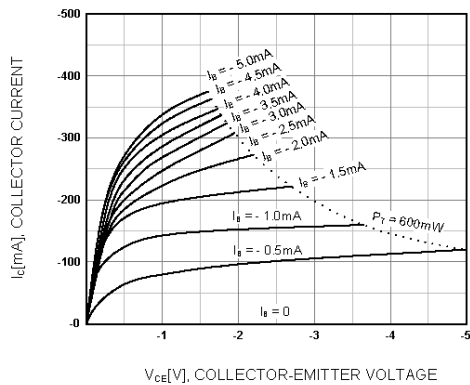


Figure 1. Static Characteristic

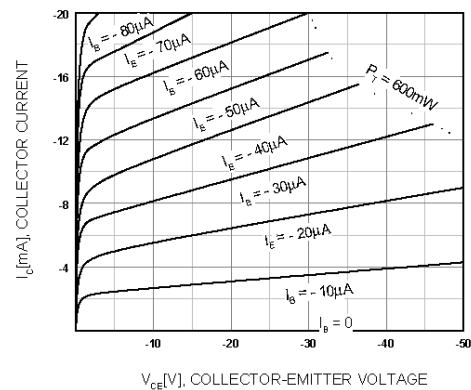


Figure 2. Static Characteristic

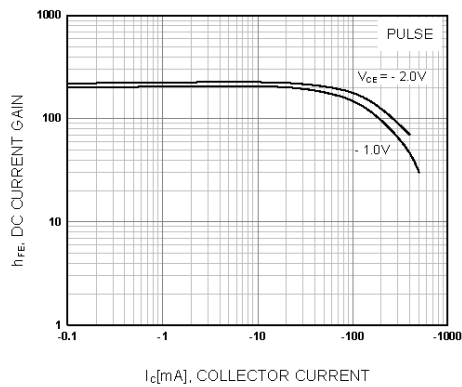


Figure 3. DC current Gain

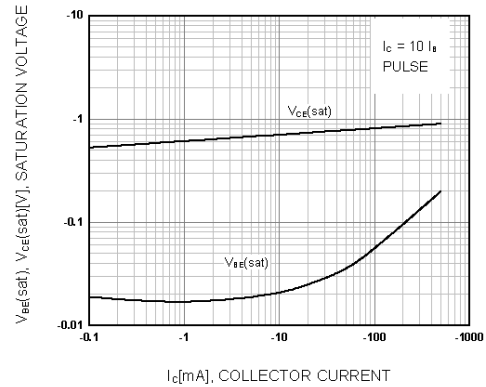


Figure 4. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

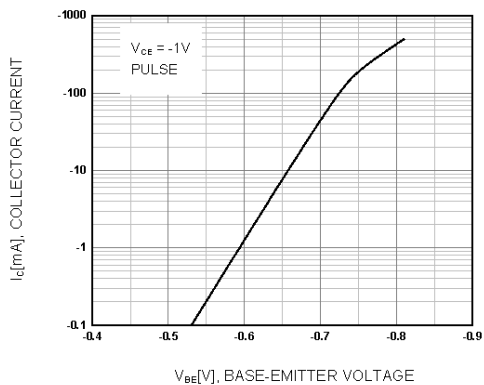


Figure 5. Base-Emitter On Voltage

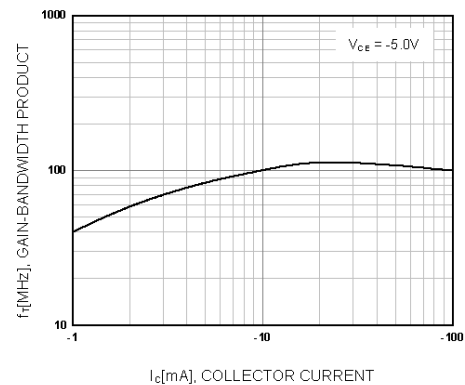
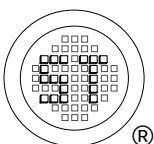


Figure 6. Gain Bandwidth Product



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ISO/TS 16949 : 2002  
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ISO 14001:2004  
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Certificate No. 0506098

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