

## Linear Systems NPN Transistor

The LS3250SB is a NPN transistor mounted in a single TO-92 package.

The 3 Pin TO-92 provides ease of manufacturing, and the symmetrical pinout prevents improper orientation.

(See Packaging Information).

- Low Output Capacitance

### FEATURES

LOW CAPACITANCE

≤ 2pF

**ABSOLUTE MAXIMUM RATINGS**<sup>1</sup>  
@ 25°C (unless otherwise noted)

### Maximum Temperatures

Storage Temperature

-65°C to +150°C

Operating Junction Temperature

-55°C to +150°C

### Maximum Power Dissipation

Continuous Power Dissipation

TBD

### Maximum Currents

Collector Current

50mA

### Maximum Voltages

Collector to Collector Voltage

80V

### ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

| SYMBOL                 | CHARACTERISTICS                | MIN. | TYP. | MAX. | UNITS | CONDITIONS                                                          |
|------------------------|--------------------------------|------|------|------|-------|---------------------------------------------------------------------|
| $V_{CEO}$              | Collector to Base Voltage      | 40   | --   | --   | V     | $I_C = 10mA, I_E = 0$                                               |
| $V_{CEQ}$              | Collector to Emitter Voltage   | 40   | --   | --   | V     | $I_C = 10\mu A, I_B = 0$                                            |
| $V_{EBO}$ <sup>2</sup> | Emitter-Base Breakdown Voltage | 6.2  | --   | --   | V     | $I_E = 10\mu A, I_C = 0$                                            |
| $h_{FE}$               | DC Current Gain                | 100  | --   | --   |       | $I_C = 10\mu A, V_{CE} = 5V$                                        |
|                        |                                | 80   | --   | --   |       | $I_C = 100\mu A, V_{CE} = 5V$                                       |
|                        |                                | 80   | --   | --   |       | $I_C = 1mA, V_{CE} = 5V$                                            |
| $V_{CE(SAT)}$          | Collector Saturation Voltage   | --   | --   | 0.25 | V     | $I_C = 100mA, I_B = 10mA$                                           |
| $I_{EBO}$              | Emitter Cutoff Current         | --   | --   | 0.2  | nA    | $I_C = 0A, V_{CB} = 3V$                                             |
| $I_{CBO}$              | Collector Cutoff Current       | --   | --   | 0.2  | nA    | $I_E = 0A, V_{CB} = 20V$                                            |
| $C_{OBO}$              | Output Capacitance             | --   | --   | 2    | pF    | $I_E = 0A, V_{CB} = 10V$                                            |
| $f_T$                  | Current Gain Bandwidth Product | --   | --   | 600  | MHz   | $I_C = 1mA, V_{CE} = 5V$                                            |
| NF                     | Narrow Band Noise Figure       | --   | --   | 3    | dB    | $I_C = 100\mu A, V_{CE} = 5V, BW = 200Hz, R_B = 10\Omega, f = 1KHz$ |

Notes:

- Absolute Maximum ratings are limiting values above which serviceability may be impaired
- The reverse base-to-emitter voltage must never exceed 6.2 volts; the reverse base-to-emitter current must never exceed 10μA.



Available Packages:

LS3250SB in TO-92  
LS3250SB available as bare die

Please contact Micross for full package and die dimensions:

Email: [chipcomponents@micross.com](mailto:chipcomponents@micross.com)  
Web: [www.micross.com/distribution.aspx](http://www.micross.com/distribution.aspx)

TO-92 (Bottom View)

