

## Linear Systems NPN Transistor

The LS3250SA is a NPN transistor mounted in a single TO-92 package.

The 3 Pin TO-92 provides ease of manufacturing.

(See Packaging Information).

**LS3250SA Features:**

- Low Output Capacitance

FEATURES	
LOW OUTPUT CAPACITANCE	≤ 2pF
<b>ABSOLUTE MAXIMUM RATINGS</b> <sup>1</sup> @ 25°C (unless otherwise noted)	
<b>Maximum Temperatures</b>	
Storage Temperature	-65°C to +150°C
Operating Junction Temperature	-55°C to +150°C
<b>Maximum Power Dissipation</b>	
Continuous Power Dissipation	TBD
<b>Maximum Currents</b>	
Collector Current	50mA
<b>Maximum Voltages</b>	
Collector to Collector Voltage	80V

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

SYMBOL	CHARACTERISTICS	MIN.	TYP.	MAX.	UNITS	CONDITIONS
$V_{CB0}$	Collector to Base Voltage	45	--	--	V	$I_C = 10mA, I_E = 0$
$V_{CE0}$	Collector to Emitter Voltage	45	--	--	V	$I_C = 10\mu A, I_B = 0$
$V_{EBO}$ <sup>2</sup>	Emitter-Base Breakdown Voltage	6.2	--	--	V	$I_E = 10\mu A, I_C = 0$
$V_{CC0}$	Collector to Collector Voltage	80	--	--	V	$I_C = 10\mu A, I_E = 0$
$h_{FE}$	DC Current Gain	150	--	--		$I_C = 10\mu A, V_{CE} = 5V$
		120	--	--		$I_C = 100\mu A, V_{CE} = 5V$
		100	--	--		$I_C = 1mA, V_{CE} = 5V$
$V_{CE(SAT)}$	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.



TO-92 (Bottom View)

Available Packages:

LS3250SA in TO-92  
LS3250SA 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)

