

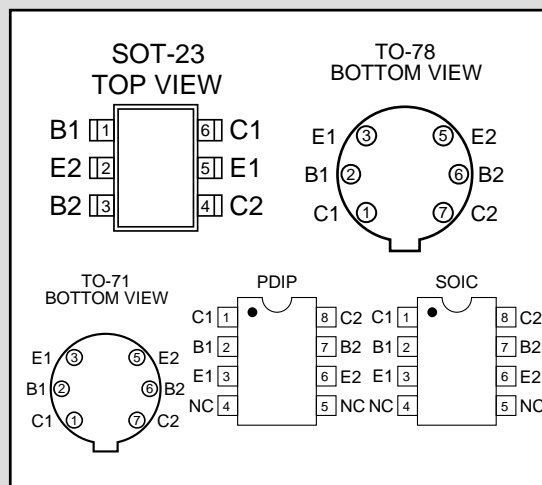
LINEAR SYSTEMS

Linear Integrated Systems

FEATURES	
6 LEAD SOT-23 SURFACE MOUNT PACKAGE*	
TIGHT MATCHING ¹	2mV
EXCELLENT THERMAL TRACKING ¹	3 μ V/ $^{\circ}$ C
ABSOLUTE MAXIMUM RATINGS ²	
@ 25 $^{\circ}$ C (unless otherwise stated)	
Maximum Temperatures	
Storage Temperature	-65 to +150 $^{\circ}$ C
Operating Junction Temperature	-55 to +150 $^{\circ}$ C
Maximum Power Dissipation	
Continuous Power Dissipation	TBD
Maximum Currents	
Collector Current	50mA
Maximum Voltages	
Collector to Collector Voltage	80V

LS3550 SERIES

MONOLITHIC DUAL PNP TRANSISTORS



MATCHING ELECTRICAL CHARACTERISTICS @25 $^{\circ}$ C (unless otherwise stated)

	CHARACTERISTIC	LS3250A						UNIT	CONDITIONS
		MIN	MAX	MIN	MAX	MIN	MAX		
$ V_{BE1} - V_{BE2} $	Base to Emitter Voltage Differential		2		5		10	mV	$I_C = -10\text{mA}$, $V_{CE} = -5\text{V}$
$\frac{ V_{BE1} - V_{BE2} }{\Delta T}$	Base to Emitter Voltage Differential Change with Temperature		3		5		15	$\mu\text{V}/^{\circ}\text{C}$	$I_C = -10\text{mA}$, $V_{CE} = -5\text{V}$ $T_A = -40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
$ I_{B1} - I_{B2} $	Base Current Differential		10		10		10	nA	$I_C = -10\mu\text{A}$, $V_{CE} = -5\text{V}$
$\frac{ I_{B1} - I_{B2} }{\Delta T}$	Base Current Differential Change with Temperature		0.5		0.5		1.0	nA/ $^{\circ}\text{C}$	$I_C = -10\mu\text{A}$, $V_{CE} = -5\text{V}$ $T_A = -40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
$\frac{h_{FE1}}{h_{FE2}}$	Current Gain Differential		10		10		15	%	$I_C = -10\mu\text{A}$, $V_{CE} = -5\text{V}$

ELECTRICAL CHARACTERISTICS @25 $^{\circ}$ C (unless otherwise stated)

SYMBOL	CHARACTERISTIC	LS3250A		LS3250B		LS3250C		UNIT	CONDITIONS
		MIN	MAX	MIN	MAX	MIN	MAX		
BV_{CBO}	Collector to Base Breakdown Voltage	-45		-40		-20		V	$I_C = -10\text{mA}$, $I_E = 0\text{A}$
BV_{CEO}	Collector to Emitter Breakdown Voltage	-45		-40		-20			$I_C = -10\mu\text{A}$, $I_E = 0\text{A}$
BV_{CCO}	Collector to Collector Breakdown Voltage	-80		-80		-80			$I_E = -10\mu\text{A}$, $I_C = 0\text{A}$
BV_{EBO}	Emitter to Base Breakdown Voltage ³	-6.2		-6.2		-6.2			$I_C = -100\text{mA}$ $I_B = -10\text{mA}$
$V_{CE(SAT)}$	Collector to Emitter Saturation Voltage		-0.25		-0.25		-1.2		

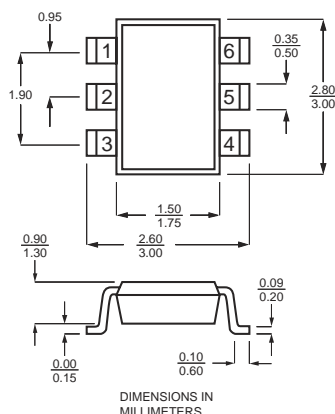
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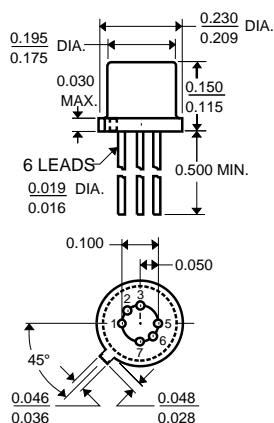
ELECTRICAL CHARACTERISTICS CONT. @25 °C (unless otherwise stated)

SYMBOL	CHARACTERISTIC	LS3250A		LS3250B		LS3250C		UNIT	CONDITIONS
		MIN	MAX	MIN	MAX	MIN	MAX		
h_{FE}	DC Current Gain	150		100		50			$I_C = -1mA, V_{CE} = -5V$
		120		80		40			$I_C = -10mA, V_{CE} = -5V$
		100		80		40			$I_C = -100mA, V_{CE} = -5V$
I_{CBO}	Collector Cutoff Current		-0.2		-0.2			nA	$I_E = 0A, V_{CB} = -30V$
									$I_E = 0A, V_{CB} = -20V$
I_{EBO}	Emitter Cutoff Current		-0.2		-0.2		-0.2		$I_E = 0A, V_{CB} = -3V$
I_{C1C2}	Collector to Collector Leakage Current		-1		-1		-1		$V_{CC} = \pm 80V$
C_{OBO}	Output Capacitance		2		2		2	pF	$I_E = 0A, V_{CB} = -10V$
f_T	Gain Bandwidth Product (Current)		600		600		600	MHz	$I_C = -1mA, V_{CE} = -5V$
NF	Noise Figure (Narrow Band)		3		3		3	dB	$I_C = -100\mu A, V_{CE} = -5V$ $BW = 200Hz$ $R_B = 10\Omega, f = 1kHz$

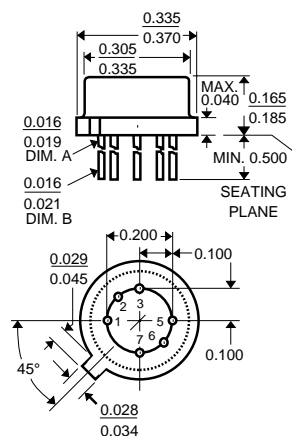
SOT-23



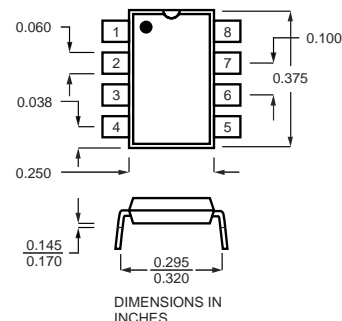
TO-71 Six Lead



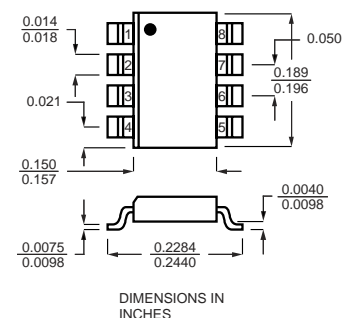
TO-78



PDIP



SOIC



Standard package is SOT23 6 lead.
Other packages listed are optional. Contact factory regarding availability of optional packages.

NOTES:

- Maximum rating for LS3550A, SOT23-6.
- 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 -10 μ A.

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