

LINEAR SYSTEMS

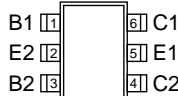
Over Three Decades of Quality Through Innovation

LS3550 SERIES

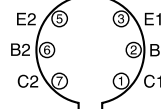
MONOLITHIC DUAL & SINGLE
PNP TRANSISTORS

FEATURES	
6 LEAD SOT-23 SURFACE MOUNT PACKAGE*	
TIGHT MATCHING ¹	2mV
EXCELLENT THERMAL TRACKING ¹	3 μ V/ $^{\circ}$ C
ABSOLUTE MAXIMUM RATINGS²	
@ 25 $^{\circ}$ C (unless otherwise stated)	
Maximum Temperatures	
Storage Temperature	-55 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	60V

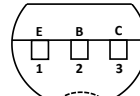
SOT-23 6L
TOP VIEW
(DUAL)



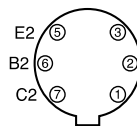
TO-78 6L
TOP VIEW
(DUAL)



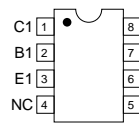
TO-92 3L
BOTTOM VIEW
(SINGLE)



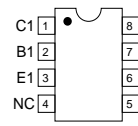
TO-71
TOP VIEW
(DUAL)



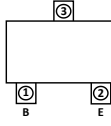
PDIP
TOP VIEW
(DUAL)



SOIC
TOP VIEW
(DUAL)



SOT-23 3L
TOP VIEW
(SINGLE)



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

SYMBOL	CHARACTERISTIC	LS3550A		LS3550B		LS3550C		UNIT	CONDITIONS
		MIN	MAX	MIN	MAX	MIN	MAX		
$ V_{BE1} - V_{BE2} $	Base to Emitter Voltage Differential		2		5		10	mV	$I_C = -100\mu A, V_{CE} = -5V$
$\frac{ V_{BE1} - V_{BE2} }{\Delta T}$	Base to Emitter Voltage Differential Change with Temperature		3		5		15	$\mu V/^{\circ}C$	$I_C = -100\mu A, V_{CE} = -5V$ $T_A = -40^{\circ}C$ to $+85^{\circ}C$
$ I_{B1} - I_{B2} $	Base Current Differential		10		10		10	nA	$I_C = -10\mu A, V_{CE} = -5V$
$\frac{ I_{B1} - I_{B2} }{\Delta T}$	Base Current Differential Change with Temperature		0.5		0.5		1.0	nA/ $^{\circ}C$	$I_C = -10\mu A, V_{CE} = -5V$ $T_A = -40^{\circ}C$ to $+85^{\circ}C$
$\frac{h_{FE1}}{h_{FE2}}$	Current Gain Differential		10		10		15	%	$I_C = -1mA, V_{CE} = -5V$

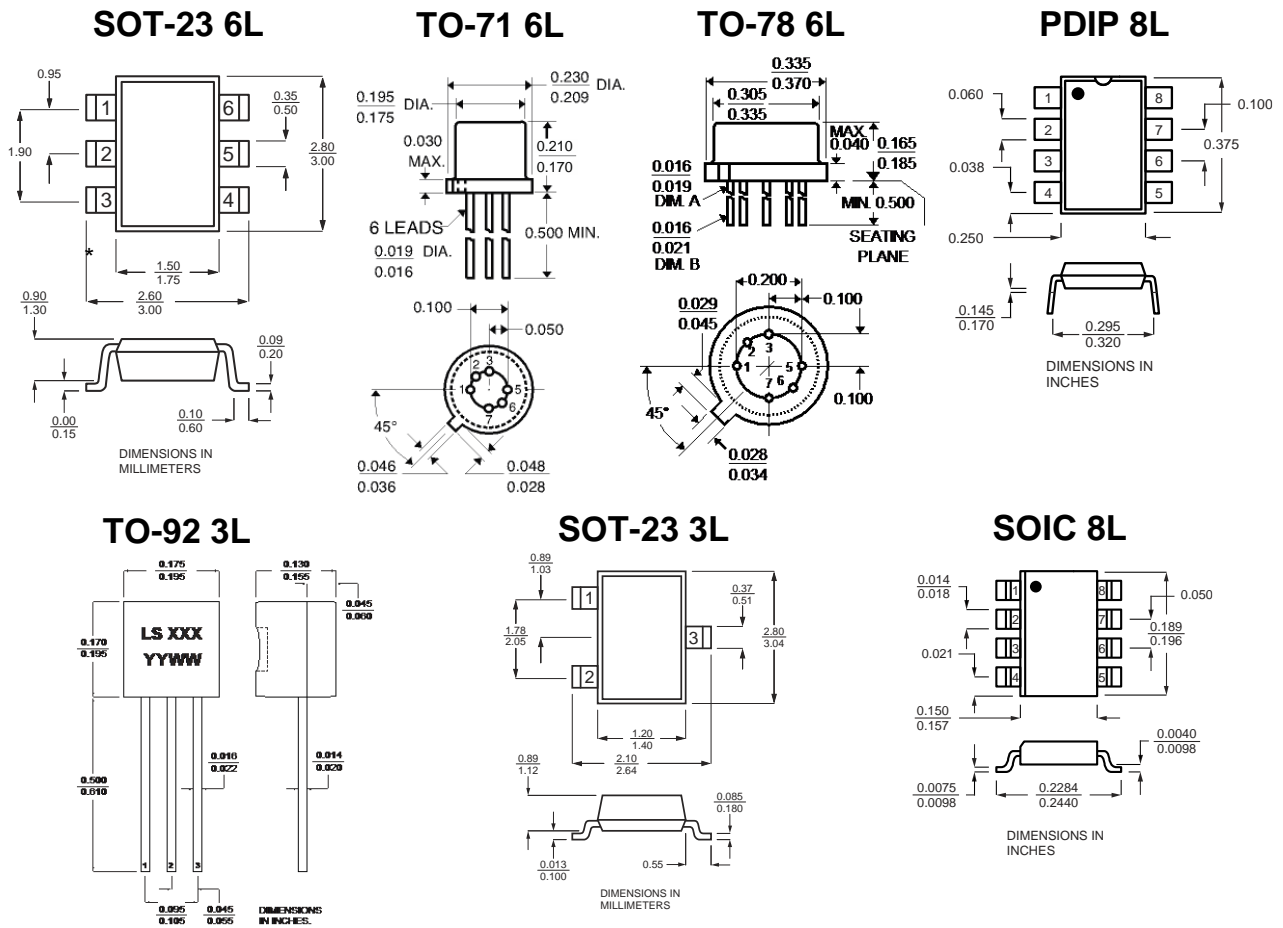
ELECTRICAL CHARACTERISTICS @25 $^{\circ}$ C (unless otherwise stated)

SYMBOL	CHARACTERISTIC	LS3550A		LS3550B		LS3550C		UNIT	CONDITIONS
		MIN	MAX	MIN	MAX	MIN	MAX		
BV_{CBO}	Collector to Base Breakdown Voltage	-45		-40		-20		15	$I_C = -10\mu A, I_E = 0A$
BV_{CEO}	Collector to Emitter Breakdown Voltage	-45		-40		-20		16	$I_C = -5mA, I_B = 0A$
BV_{CCO}	Collector to Collector Breakdown Voltage	± 60		± 60		± 60		V	$I_{CC} = \pm 1\mu A, I_B = I_C = 0A$
BV_{EBO}	Emitter to Base Breakdown Voltage ³	-6.0		-6.0		-6.0			$I_E = -10\mu A, I_C = 0A$
$V_{CE(SAT)}$	Collector to Emitter Saturation Voltage		-0.50		-0.50		-1.2		$I_C = -10mA$ $I_B = -1mA$

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

SYMBOL	CHARACTERISTIC	LS3550A		LS3550B		LS3550C		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		60		30			I _C = -35mA, V _{CE} = -5V
I _{CBO}	Collector Cutoff Current		-0.35		-0.35		-0.35	nA	I _E = 0A, V _{CB} = -30V
I _{EBO}	Emitter Cutoff Current		-0.35		-0.35		-0.35	nA	I _E = 0A, V _{CB} = -3V
I _{C1C2}	Collector to Collector Leakage Current		±1		±1		±1	µA	V _{CC} = ±60V, I _B =I _C =0A
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 = -100µA, V _{CE} = -5V BW = 200Hz R _B = 10Ω, f = 1kHz

PACKAGE OPTIONS:



NOTES:

1. Maximum rating for LS3550A, SOT-23-6L.
2. Absolute maximum ratings are limiting values above which serviceability may be impaired.
3. The reverse Base-to-Emitter voltage must never exceed -6.0 Volts. The reverse Base-to-Emitter current must never exceed -10µA.

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