

# General Purpose Transistors

## PNP Silicon

### FEATURE

Pb-Free Package is available.

### ORDERING INFORMATION

Device	Package	Shipping
L8550*LT1	SOT-23	3000/Tape&Reel
L8550*LT1G (Pb-Free)	SOT-23	3000/Tape&Reel

### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	$V_{CEO}$	25	V
Collector-Base voltage	$V_{CBO}$	40	V
Emitter-base Voltage	$V_{EBO}$	5	V
Collector current-continuoun	$I_C$	800	mAdc

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR- 5 Board (1) $T_A = 25\text{ }^\circ\text{C}$	$P_D$	225	mW
Derate above $25\text{ }^\circ\text{C}$		1.8	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Total Device Dissipation Alumina Substrate, (2) $T_A = 25\text{ }^\circ\text{C}$	$P_D$	300	mW
Derate above $25\text{ }^\circ\text{C}$		2.4	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Junction and Storage Temperature	$T_J, T_{stg}$	-55 to +150	$^\circ\text{C}$

### DEVICEMARKING

L8550QLT1 = 1YD L8550PLT1=85P

### ELECTRICAL CHARACTERISTICS ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
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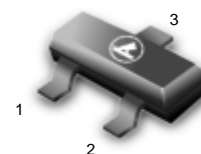
### OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ( $I_C = 1.0\text{mA}$ )	$V_{(BR)CEO}$	25	—	—	V
Emitter-Base Breakdown Voltage ( $I_E = 100\mu\text{A}$ )	$V_{(BR)EBO}$	5	—	—	V
Collector-Base Breakdown voltage ( $I_C = 100\mu\text{A}$ )	$V_{(BR)CBO}$	40	—	—	V
Collector Cutoff Current ( $V_{CB} = 35\text{V}$ )	$I_{CBO}$	—	—	150	nA
Emitter Cutoff Current ( $V_{EB} = 4\text{V}$ )	$I_{EBO}$	—	—	150	nA

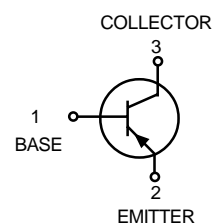
1. FR-5 = 1.0 x 0.75 x 0.062 in.

2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

## L8550\*LT1



SOT-23



**L8550\*LT1****ON CHARACTERISTICS**

Characteristic	Symbol	Min	Typ	Max	Unit
DC Current Gain ( $I_C = 100\text{mA}$ $V_{CE} = 1\text{V}$ )	$h_{FE}$	150	–	600	
Collector-Emitter Saturation Voltage ( $I_C = 800\text{mA}$ $I_B = 80\text{mA}$ )	$V_{CE(S)}$	–	–	0.5	V

**NOTE:**

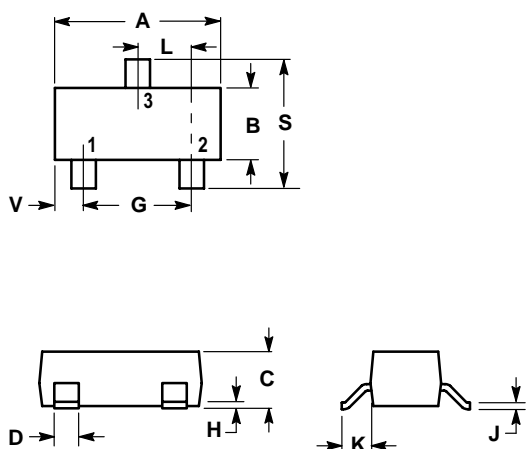
*	P	Q	R	S
$h_{FE}$	100~200	150~300	200~400	300~600

**L8550\*LT1**

**SOT-23**

**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M,1982
2. CONTROLLING DIMENSION: INCH.



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- PIN 1. BASE  
 2. EMITTER  
 3. COLLECTOR

