

General Purpose Transistors

NPN Silicon

FEATURE

- High current capacity in compact package.
I_C = 1.5A.
- Epitaxial planar type.
- NPN complement: L8050H
- Pb-Free Package is available.

DEVICE MARKING AND ORDERING INFORMATION

| Device | Marking | Shipping |
|-------------|------------------|----------------|
| L8550HPLT1 | 1HB | 3000/Tape&Reel |
| L8550HPLT1G | 1HB (Pb-Free) | 3000/Tape&Reel |
| L8550HQLT1 | 1HD | 3000/Tape&Reel |
| L8550HQLT1G | 1HD (Pb-Free) | 3000/Tape&Reel |

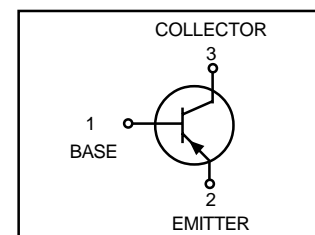
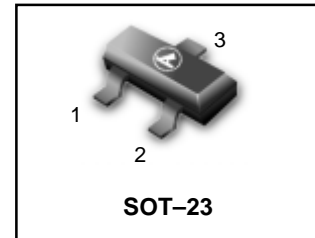
MAXIMUM RATINGS

| Rating | Symbol | Max | 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 | 1500 | mAdc |

THERMAL CHARACTERISTICS

| Characteristic | Symbol | Max | Unit |
|---|----------------------------------|-------------|-------------|
| Total Device Dissipation FR-5 Board,(1) T _A =25°C Derate above 25°C | P _D | 225 1.8 | mW mW/°C |
| Thermal Resistance,Junction to Ambient | R _{θJA} | 556 | °C/W |
| Total Device Dissipation Alumina Substrate,(2) T _A =25°C Derate above 25°C | P _D | 300 2.4 | mW mW/°C |
| Thermal Resistance,Junction to Ambient | R _{θJA} | 417 | °C/W |
| Junction and Storage Temperature | T _j ,T _{stg} | -55 to +150 | °C |

L8550H*LT1



L8550H*LT1

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

| Characteristic | Symbol | Min | Typ | Max | Unit |
|----------------|--------|-----|-----|-----|------|
|----------------|--------|-----|-----|-----|------|

OFF CHARACTERISTICS

| | | | | | |
|--|----------------------|----|---|-----|----|
| Collector-Emitter Breakdown Voltage (I _C =1.0mA) | V _{(BR)CEO} | 25 | - | - | V |
| Emitter-Base Breakdown Voltage (I _E =100μA) | V _{(BR)EBO} | 5 | - | - | V |
| Collector-Base Breakdown Voltage (I _C =100μA) | V _{(BR)CBO} | 40 | - | - | V |
| Collector Cutoff Current (V _{CB} =35V) | I _{CBO} | - | - | 150 | nA |
| Emitter Cutoff Current (V _{EB} =4V) | I _{EBO} | - | - | 150 | nA |

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

| Characteristic | Symbol | Min | Typ | Max | Unit |
|----------------|--------|-----|-----|-----|------|
|----------------|--------|-----|-----|-----|------|

ON CHARACTERISTICS

| | | | | | |
|---|--------------------|-----|---|-----|---|
| DC Current Gain I _C =100mA, V _{CE} =1V | h _{FE} | 120 | - | 600 | |
| Collector-Emitter Saturation Voltage (I _C =800mA, I _B =80mA) | V _{CE(S)} | - | - | 0.5 | V |

NOTE :

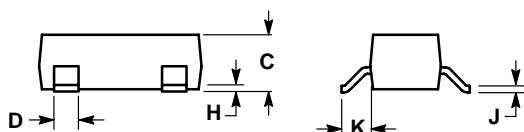
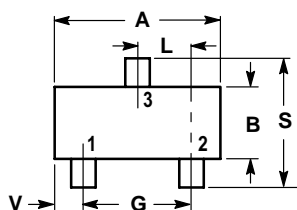
| * | P | Q | R | S |
|-----------------|---------|---------|---------|---------|
| h _{FE} | 120~200 | 150~300 | 200~400 | 300~600 |

L8550H*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

