

General Purpose Transistors

PNP Silicon

FEATURE

- Complementary to L9014.
- Pb-Free package is available.

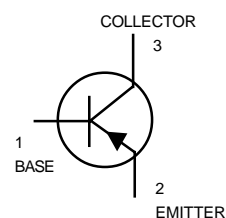
DEVICE MARKING AND ORDERING INFORMATION

| Device | Marking | Shipping |
|-------------------------|---------|----------------|
| L9015QLT1 | 15Q | 3000/Tape&Reel |
| L9015QLT1G (Pb-Free) | 15Q | 3000/Tape&Reel |
| L9015RLT11 | 15R | 3000/Tape&Reel |
| L9015RLT1G (Pb-Free) | 15R | 3000/Tape&Reel |
| L9015SLT1 | 15S | 3000/Tape&Reel |
| L9015SLT1G (Pb-Free) | 15S | 3000/Tape&Reel |

L9015*LT1



SOT-23



MAXIMUM RATINGS

| Rating | Symbol | Value | Unit |
|------------------------------|-----------|-------|------|
| Collector-Emitter Voltage | V_{CEO} | 45 | V |
| Collector-Base Voltage | V_{CBO} | 50 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector current-continuoun | I_C | 100 | mA |

THERMAL CHARATEERISTICS

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

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

OFF CHARACTERISTICS

| Characteristic | Symbol | Min | Typ | Max | Unit |
|---|---------------|-----|-----|-----|------|
| Collector-Emitter Breakdown Voltage ($I_C=1.0\text{mA}$) | $V(BR)_{CEO}$ | 45 | - | - | V |
| Emitter-Base Breakdown Voltage ($I_E=100\mu\text{A}$) | $V(BR)_{EBO}$ | 5 | - | - | V |
| Collector-Base Breakdown Voltage ($I_C=100\mu\text{A}$) | $V(BR)_{CBO}$ | 50 | - | - | V |
| Collector Cutoff Current ($V_{CB}=40\text{V}$) | I_{CBO} | - | - | 100 | nA |
| Emitter Cutoff Current ($V_{EB}=3\text{V}$) | I_{EBO} | - | - | 100 | nA |

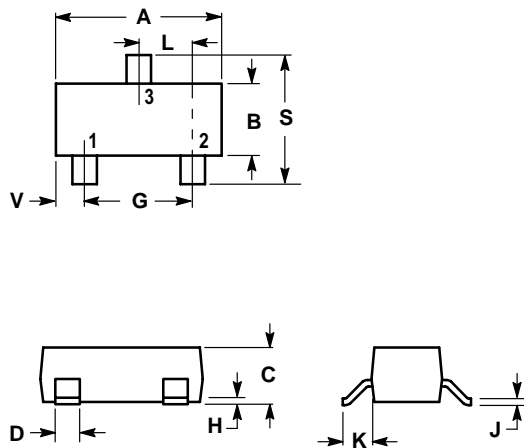
ON CHARACTERISTICS

| | | | | | |
|---|----------|-----|---|-----|---|
| DC Current Gain ($I_C=1\text{mA}$, $V_{CE}=5\text{V}$) | H_{FE} | 150 | - | 600 | |
| Collector-Emitter Saturation Voltage ($I_C=100\text{mA}$, $I_B=5\text{mA}$) | V_{CE} | - | - | 0.3 | V |

| NOTE: | * | Q | R | S |
|-------|----------|---------|---------|---------|
| | H_{FE} | 150~300 | 200~400 | 300~600 |

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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

