

# General Purpose Transistors

## PNP Silicon

### FEATURE

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

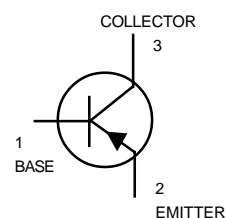
### DEVICE MARKING AND ORDERING INFORMATION

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. $T_A=25^{\circ}\text{C}$ Derate above $25^{\circ}\text{C}$	$P_D$	225 1.8	mW mW/ $^{\circ}\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^{\circ}\text{C}/\text{W}$
Total Device Dissipation Alumina Substrate, (2) $T_A=25^{\circ}\text{C}$ Derate above $25^{\circ}\text{C}$	$P_D$	300 2.4	mW 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	$^{\circ}\text{C}$

**L9015\*LT1**

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

**OFF CHARACTERISTICS**

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

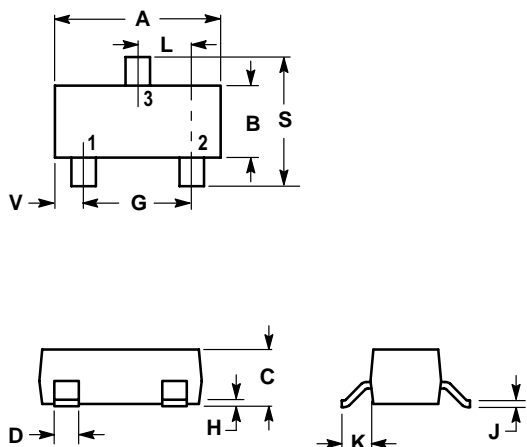
**ON CHARACTERISTICS**

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

NOTE:	*	Q	R	S
	$H_{\text{FE}}$	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

