

General Purpose Transistors

NPN Silicon

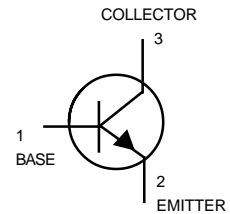
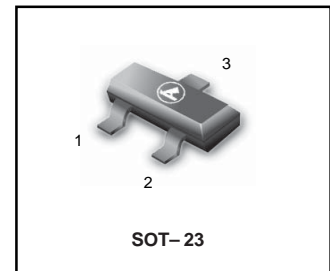
FEATURE

- Complementary to L9014.
- We declare that the material of product compliance with RoHS requirements.

DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
L9014QLT1G	14Q	3000/Tape&Reel
L9014QLT3G	14Q	10000/Tape&Reel
L9014RLT1G	14R	3000/Tape&Reel
L9014RLT3G	14R	10000/Tape&Reel
L9014SLT1G	14S	3000/Tape&Reel
L9014SLT3G	14S	10000/Tape&Reel
L9014TLT1G	14T	3000/Tape&Reel
L9014TLT3G	14T	10000/Tape&Reel

L9014QLT1G Series



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, (1) $T_A=25^\circ\text{C}$	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	$^\circ\text{C}$

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.

L9014QLT1G Series

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

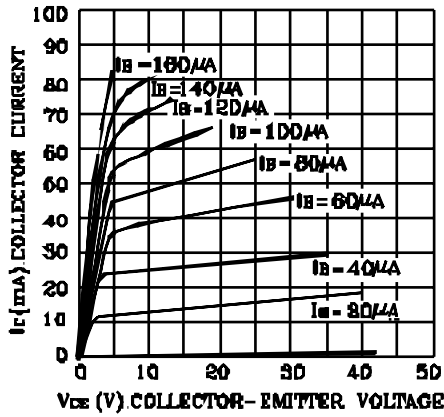
ON CHARACTERISTICS

DC Current Gain ($I_C=1\text{mA}, V_{CE}=5\text{V}$)	H_{FE}	150	-	1000	
Collector-Emitter Saturation Voltage ($I_C=100\text{mA}, I_B=5\text{mA}$)	V_{CE}	-	-	0.3	V

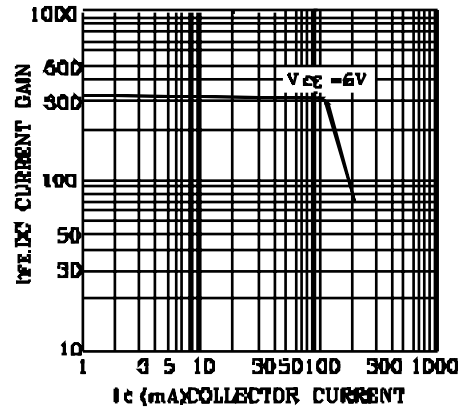
NOTE:	*	Q	R	S	T
	H_{FE}	150~300	200~400	300~600	400~1000

L9014QLT1G Series

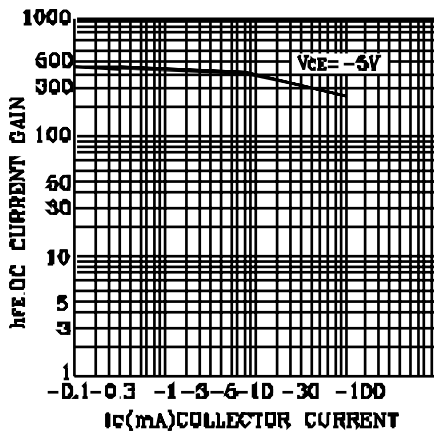
STATIC CHARACTERISTIC



DC CURRENT GAIN



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT

