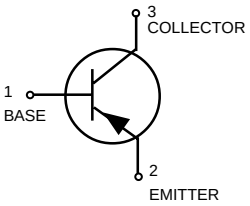
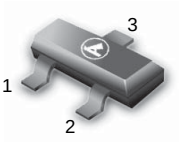
General Purpose Transistors

PNP Silicon

L9012*LT1





SOT-23 (TO-236AB)

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	20	V
Collector-Base Voltage	V_{CBO}	40	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector current-continuoun	IC	500	mAdc

THERMAL CHARATEERISTICS

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

DEVICE MARKING

L9012QLT1=12Q

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

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage (IC=1.0mA)	V(BR)CEO	20	-	-	V
Emitter-Base Breakdown Voltage (IE=100 μA)	V(BR)EBO	5	-	-	V
Collector-Base Breakdown Voltage (IC=100 μA)	V(BR)CBO	40	-	-	V
Collector Cutoff Current (VCB=35V)	ICBO	-	-	150	nA
Emitter Cutoff Current (VBE=4V)	IEBO			150	nA

L9012*LT1

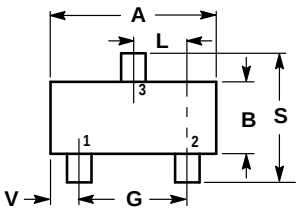
ON CHARACTERISTICS

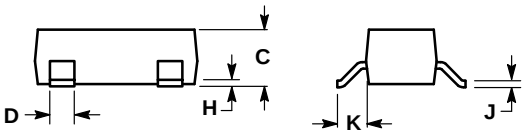
DC Current Gain (I_C=50mA, V_{CE}=1V)	Hfe	100	-	600	
Collector-Emitter Saturation Voltage (I_C=500mA,I_B=50mA)	$V_{CE(S)}$	-	-	0.6	V

NOTE:

*	P	Q	R	S
H_{FE}□	100~200□	150~300□	200~400□	300~600

SOT-23 (TO-236AB)





NOTES:

1. CONTROLLING DIMENSION: MILLIMETERS
2. LEAD THICKNESS SPECIFIED PER L / F DRAWING WITH SOLDER PLATING.

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	0.0180	0.0236	0.45	0.60
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.0984	2.10	2.50
V	0.0177	0.0236	0.45	0.60

PIN 1. BASE
2. EMITTER
3. COLLECTOR