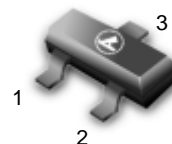
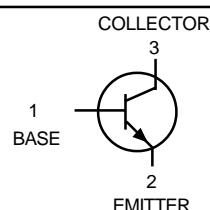


# General Purpose Transistors

## L8050HQLT1


**SOT-23**


### 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-continuous	$I_C$	1500	mAdc

### THERMAL CHARACTERISTICS

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

### DEVICE MARKING

L8050HQLT1=1HC

### ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
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### OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ( $I_C=1.0\text{mA}$ )	$V_{(BR)CEO}$	25	-	-	V
Emitter-Base Breakdown Voltage ( $I_E=100\mu\text{A}$ )	$V_{(BR)EBO}$	5	-	-	V
Collector-Base Breakdown Voltage ( $I_C=100\mu\text{A}$ )	$V_{(BR)CBO}$	40	-	-	V
Collector Cutoff Current ( $V_{CB}=35\text{V}$ )	$I_{CBO}$	-	-	150	nA
Emitter Cutoff Current ( $V_{EB}=4\text{V}$ )	$I_{EBO}$	-	-	150	nA

**L8050HQLT1****ONCHARACTERISTICS**

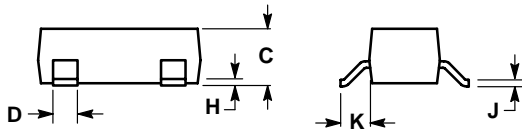
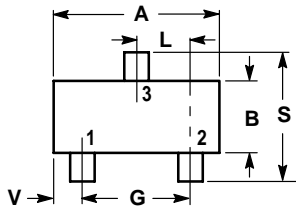
Charateristic	Symbol	Min	Typ	Max	Unit
DC Current Gain $I_c=50\text{mA}, V_{CE}=1\text{V}$	$h_{FE}$	150	-	300	
Collector-Emitter Saturation Voltage $(I_c=500\text{mA})$	$V_{CE(S)}$	-	-	0.5	v

**L8050HQLT1**

**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

