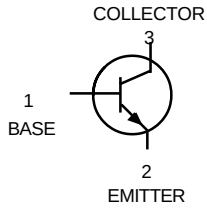
General Purpose Transistors
NPN Silicon

L8050HQLTIG Series

SOT–23



FEATURE

- High current capacity in compact package.
  I_C =1.5 A.
- Epitaxial planar type.
- NPN complement: L8050H
- Pb-Free Package is available.

DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
L8050HPLT1G	1HA	3000/Tape&Reel
L8050HPLT3G	1HA	10000/Tape&Reel
L8050HQLT1G	1HC	3000/Tape&Reel
L8050HQLT3G	1HC	10000/Tape&Reel
L8050HRLT1G	1HE	3000/Tape&Reel
L8050HRLT3G	1HE	10000/Tape&Reel
L8050HSLT1G	1HG	3000/Tape&Reel
L8050HSLT3G	1HG	10000/Tape&Reel

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	I_C	1500	mAdc

THERMAL CHARACTERISTICS

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

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.

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

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage (I_C=1.0mA)	$V_{(BR)CEO}$	25	–	–	V
Emitter-Base Breakdown Voltage (I_E=100μA)	$V_{(BR)EBO}$	5	–	–	V
Collector-Base Breakdown Voltage (I_C=100μA)	$V_{(BR)CBO}$	40	–	–	V
Collector Cutoff Current (V_{CB}=35V)	I_{CBO}	–	–	150	nA
Emitter Cutoff Current (V_{EB}=4V)	I_{EBO}	–	–	150	nA

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

Characteristic	Symbol	Min	Typ	Max	Unit
ON CHARACTERISTICS					
DC Current Gain I_C=100mA,V_{CE}=1V	h_{FE}	100	-	600	
Collector-Emitter Saturation Voltage (I_C=800mA I_B=80mA)	$V_{CE(S)}$	-	-	0.5	V

NOTE :

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

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Series

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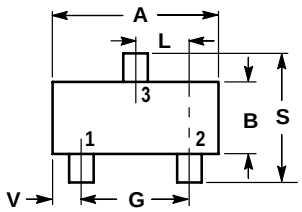

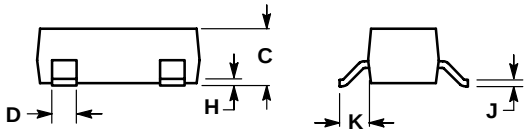

NOTES:

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