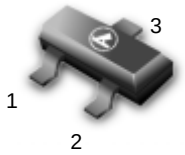
General Purpose Transistors
NPN Silicon

LH8050PLT1G
LH8050QLT1G
S-LH8050PLT1G
S-LH8050QLT1G



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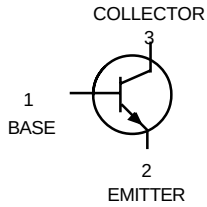


FEATURE

- High current capacity in compact package.
  I_C =1.5A.
- Epitaxial planar type.
- NPN complement: LH8550
- Pb-Free Package is available.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LH8050PLT1G,S-LH8050PLT1G	KEO	3000/Tape&Reel
LH8050PLT3G,S-LH8050PLT3G	KEO	10000/Tape&Reel
LH8050QLT1G,S-LH8050QLT1G	KEY	3000/Tape&Reel
LH8050QLT3G,S-LH8050QLT3G	KEY	10000/Tape&Reel

MAXIMUM RATINGS

Rating	Symbol	Max	Unit
Collector-Emitter Voltage	V_{CEO}	50	V
Collector-Base Voltage	V_{CBO}	50	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current-continuous	I_C	1500	mAdc

THERMAL CHARACTERISTICS

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
Thermal Resistance,Junction to Case	$R\theta_{JC}$	300	°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.

LH8050PLTIG S-LH8050PLTIG
LH8050QLTIG S-LH8050QLTIG

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

Characteristic	Symbol	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage (I_C=2.0mA,I_B=0)	$V_{(BR)CEO}$	50	–	–	V
Emitter-Base Breakdown Voltage (I_E=100μA,I_C=0)	$V_{(BR)EBO}$	6	–	–	V
Collector-Base Breakdown Voltage (I_C=100μA,I_E=0)	$V_{(BR)CBO}$	50	–	–	V
Collector Cutoff Current (V_{CB}=35V,I_E=0)	I_{CBO}	–	–	100	nA
Emitter Cutoff Current (V_{EB}=6V,I_C=0)	I_{EBO}	–	–	100	nA
Base-Emitter Voltage (V_{CE}=1V,I_C=10mA)	V_{BE}	–	0.66	1	V
DC Current Gain I_C=100mA,V_{CE}=1V	h_{FE} *	100	-	320	
DC Current Gain I_C=800mA,V_{CE}=1V	h_{FE}	40	-	-	
Collector-Emitter Saturation Voltage (I_C=800mA I_B=80mA)	$V_{CE(S)}$	-	-	0.5	V

NOTE :

*	P	Q
h_{FE}	100~200	160~320

LH8050PLTIG S-LH8050PLTIG
LH8050QLTIG S-LH8050QLTIG

Electrical Characteristic Curves (T_A=25°C)

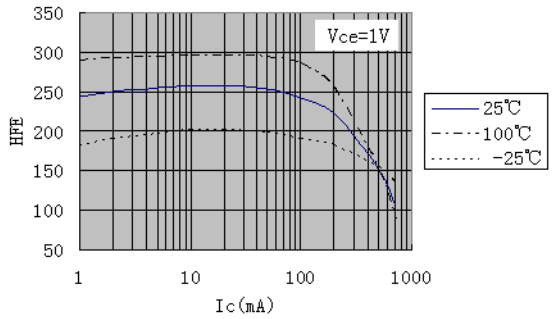


Fig.1 DC Current Gain vs. Collector Current

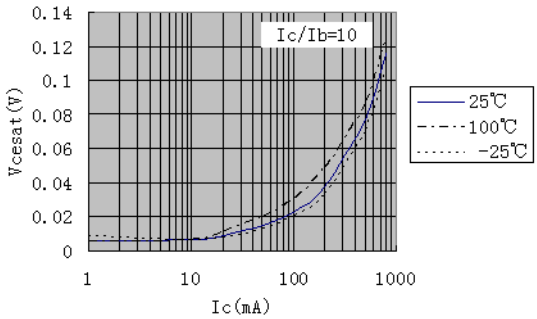


Fig.2 Collector Emitter Saturation Voltage vs. Collector Current

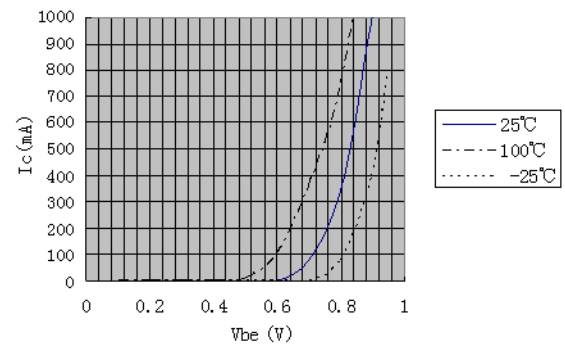


Fig.3 Collector Current vs.Base-Emitter Voltage

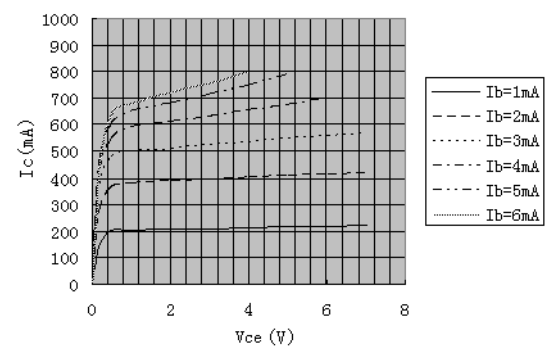
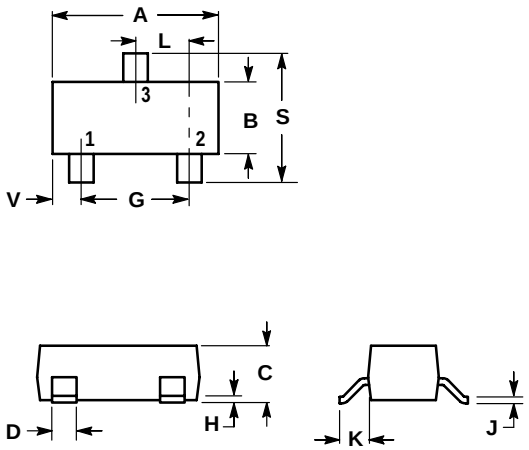


Fig.4 Collector Current vs.Collector Emitter Voltage

LH8050PLTIG S-LH8050PLTIG
LH8050QLTIG S-LH8050QLTIG

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