

# General Purpose Transistors

## NPN Silicon

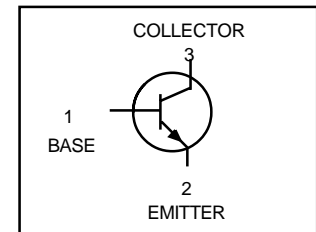
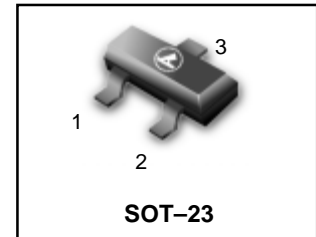
### FEATURE

- High current capacity in compact package.  
 $I_C = 0.5A$ .
- Epitaxial planar type.
- NPN complement: LX8050
- 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
(S-)LX8050PLT1G	X8A	3000/Tape&Reel
(S-)LX8050PLT3G	X8A	10000/Tape&Reel
(S-)LX8050QLT1G	X8C	3000/Tape&Reel
(S-)LX8050QLT3G	X8C	10000/Tape&Reel
(S-)LX8050RLT1G	X8E	3000/Tape&Reel
(S-)LX8050RLT3G	X8E	10000/Tape&Reel
(S-)LX8050SLT1G	X8G	3000/Tape&Reel
(S-)LX8050SLT3G	X8G	10000/Tape&Reel

LX8050PLT1G  
Series  
S-LX8050PLT1G  
Series



### 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	$I_C$	500	mAdc

### THERMAL CHARACTERISTICS

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

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.

LX8050PLT1G Series , S-LX8050PLT1G Series

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)**

Characteristic	Symbol	Min	Typ	Max	Unit
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**OFF CHARACTERISTICS**

Collector-Emitter Breakdown Voltage (I <sub>C</sub> =1.0mA)	V <sub>(BR)CEO</sub>	25	-	-	V
Emitter-Base Breakdown Voltage (I <sub>E</sub> =100μA)	V <sub>(BR)EBO</sub>	5	-	-	V
Collector-Base Breakdown Voltage (I <sub>C</sub> =100μA)	V <sub>(BR)CBO</sub>	40	-	-	V
Collector Cutoff Current (V <sub>CB</sub> =35V)	I <sub>CBO</sub>	-	-	150	nA
Emitter Cutoff Current (V <sub>EB</sub> =4V)	I <sub>EBO</sub>	-	-	150	nA

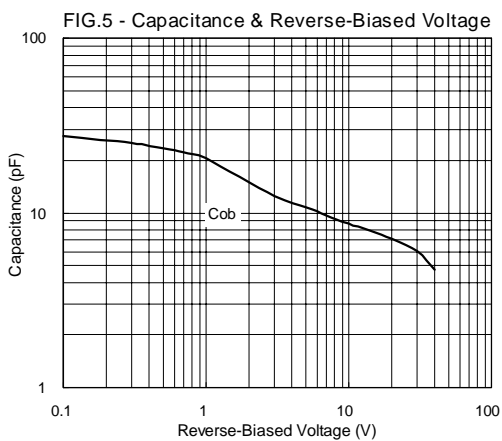
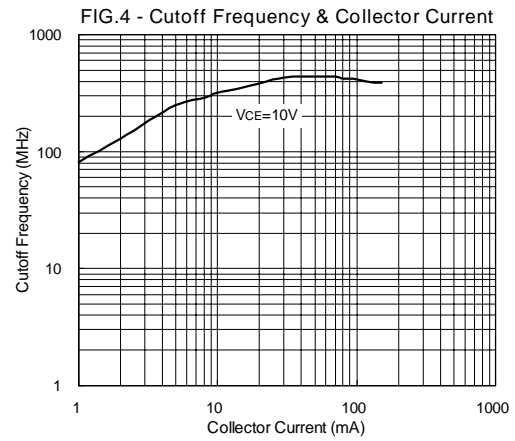
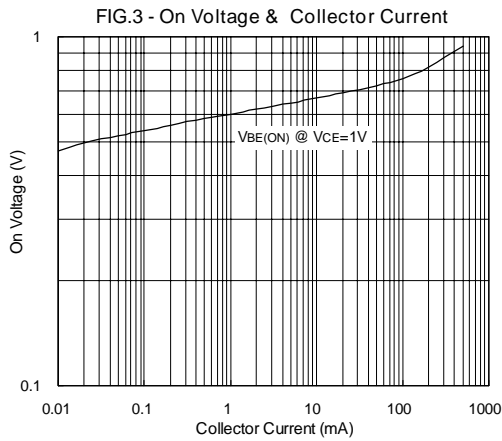
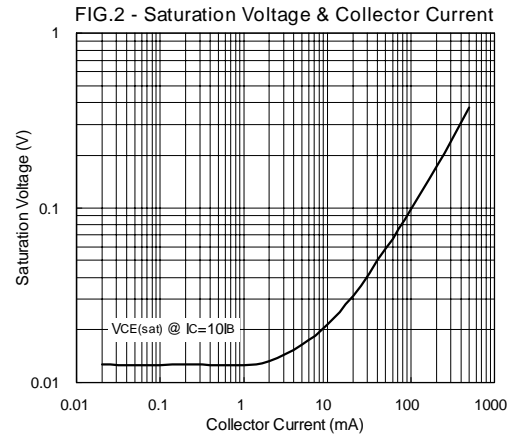
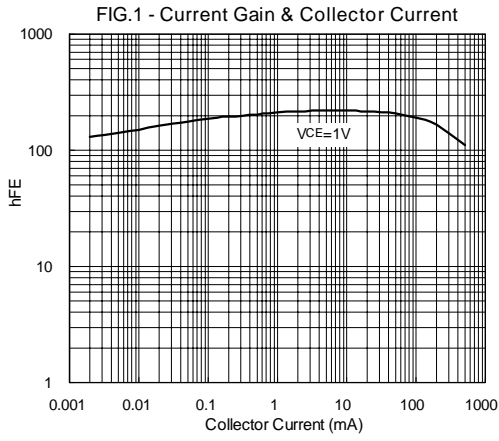
**ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)**

Charateristic	Symbol	Min	Typ	Max	Unit
<b>DC Current Gain</b>					
I <sub>C</sub> =100mA, V <sub>CE</sub> =1V	h <sub>FE</sub>	100	-	600	
<b>Collector-Emitter Saturation Voltage</b>					
(I <sub>C</sub> =500mA, I <sub>B</sub> =50mA)	V <sub>CE(sat)</sub>	-	-	0.5	V

NOTE :

*	P	Q	R	S
h <sub>FE</sub>	100~200	150~300	200-400	300-600

LX8050PLT1G Series , S-LX8050PLT1G Series

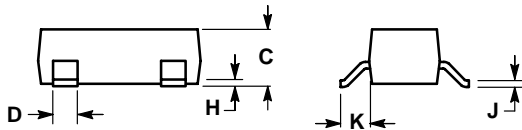
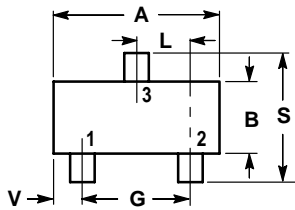


LX8050PLT1G Series , S-LX8050PLT1G Series

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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

