

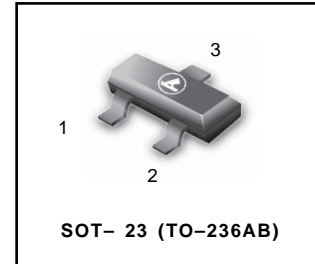
# Low Frequency Transistor

## PNP Silicon

**L2SB1197KQLT1G Series**  
**S-L2SB1197KQLT1G Series**

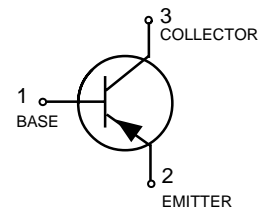
### FEATURE

- High current capacity in compact package.  
 $I_C = -0.8A$ .
- Epitaxial planar type.
- NPN complement: L2SD1781K
- We declare that the material of product compliance with RoHS requirements.
- 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
L2SB1197KQLT1G S-L2SB1197KQLT1G	AHQ	3000/Tape&Reel
L2SB1197KQLT3G S-L2SB1197KQLT3G	AHQ	10000/Tape&Reel
L2SB1197KRLT1G S-L2SB1197KRLT1G	AHR	3000/Tape&Reel
L2SB1197KRLT3G S-L2SB1197KRLT3G	AHR	10000/Tape&Reel



### MAXIMUM RATINGS(Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CB0}$	-40	V
Collector-emitter voltage	$V_{CEO}$	-32	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-0.8	A
Collector power dissipation	$P_C$	0.2	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to 150	°C

### ELECTRICAL CHARACTERISTICS(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CB0}$	-40	-	-	V	$I_C = -50\mu A$
Collector-emitter breakdown voltage	$BV_{CEO}$	-32	-	-	V	$I_C = -1mA$
Emitter-base breakdown voltage	$BV_{EBO}$	-5	-	-	V	$I_E = -50\mu A$
Collector cutoff current	$I_{CBO}$	-	-	-0.5	$\mu A$	$V_{CB} = -20V$
Emitter cutoff current	$I_{EBO}$	-	-	-0.5	$\mu A$	$V_{EB} = -4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-0.5	V	$I_C/I_B = -0.5A / -50mA$
DC current transfer ratio	$h_{FE}$	120	-	390	-	$V_{CE} = -3V, I_C = -100mA$
Transition frequency	$f_T$	-	200	-	MHz	$V_{CE} = -5V, I_E = 50mA, f = 100MHz$
Output capacitance	$C_{ob}$	-	12	30	pF	$V_{CB} = -10V, I_E = 0A, f = 1MHz$

$h_{FE}$  values are classified as follows :

Item(*)	Q	R
$h_{FE}$	120~270	180~390

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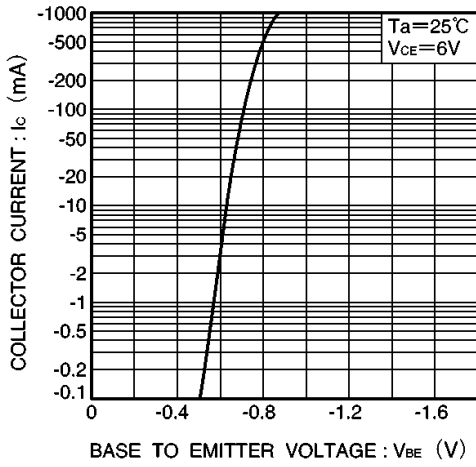


Fig.1 Grounded emitter propagation characteristics

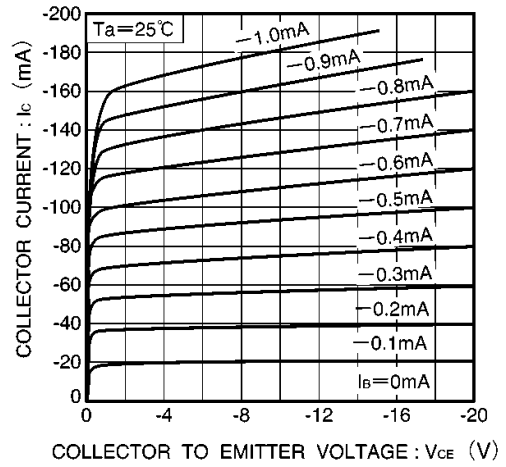


Fig.2 Grounded emitter output characteristics ( I )

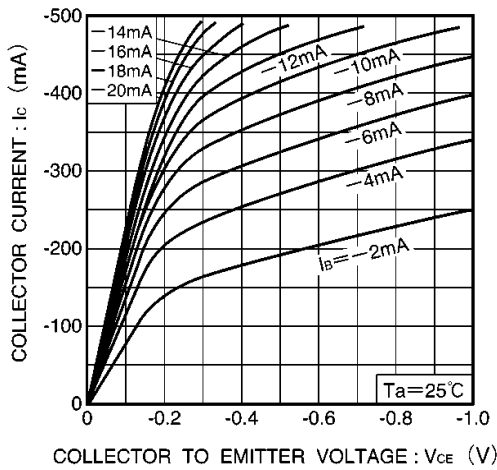


Fig.3 Grounded emitter output characteristics ( II )

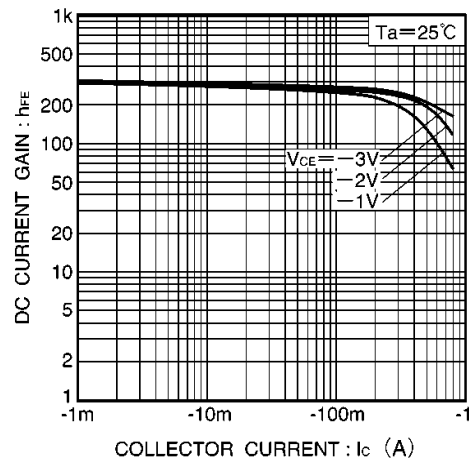


Fig.4 DC current gain vs. collector current

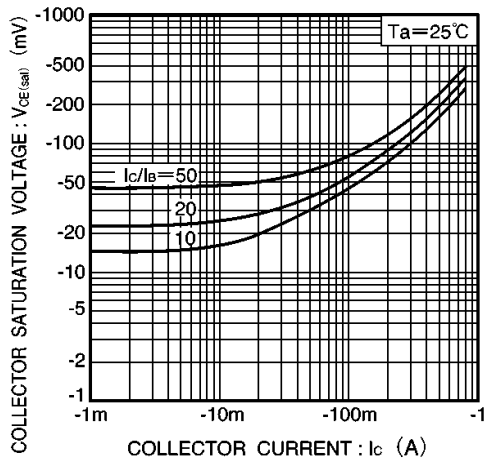


Fig.5 Collector-emitter saturation voltage vs. collector current

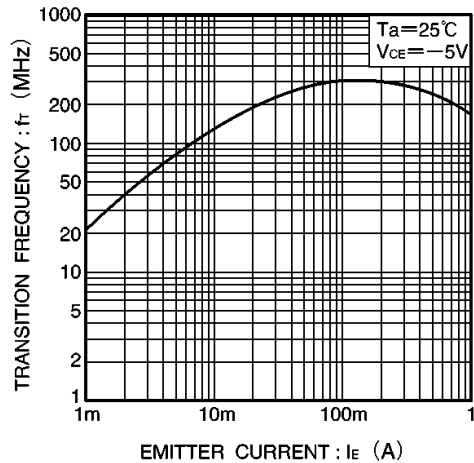
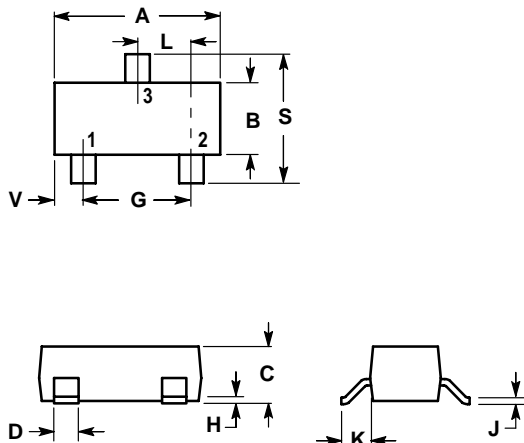


Fig.6 Gain bandwidth product vs. emitter current

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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

