

# General Purpose Transistors

## PNP Silicon

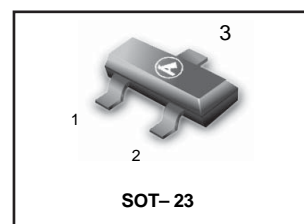
### Features

- We declare that the material of product compliance with RoHS requirements.

### L2SA1037AKQLT1G Series

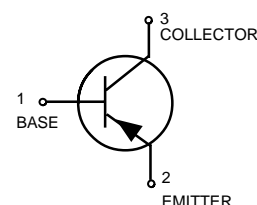
### ORDERING INFORMATION

Device	Package	Shipping
L2SA1037AKQLT1G	SOT23	3000/Tape & Reel
L2SA1037AKQLT3G	SOT23	10000/Tape & Reel



### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	$V_{CEO}$	-50	V
Collector-Base Voltage	$V_{CBO}$	-60	V
Emitter-Base Voltage	$V_{EBO}$	-6.0	V
Collector Current — Continuous	$I_C$	-150	mAdc
Collector power dissipation	$P_C$	0.2	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 ~ +150	°C



### DEVICE MARKING

L2SA1037AKQLT1G =FQ L2SA1037AKSLT1G=G3F L2SA1037AKRLT1G=FR

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

Characteristic	Symbol	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage ( $I_C = -1\text{ mA}$ )	$V_{(BR)CEO}$	-50	—	—	V
Emitter-Base Breakdown Voltage ( $I_E = -50\ \mu\text{A}$ )	$V_{(BR)EBO}$	-6	—	—	V
Collector-Base Breakdown Voltage ( $I_C = -50\ \mu\text{A}$ )	$V_{(BR)CBO}$	-60	—	—	V
Collector Cutoff Current ( $V_{CB} = -60\text{ V}$ )	$I_{CBO}$	—	—	-0.1	$\mu\text{A}$
Emitter cutoff current ( $V_{EB} = -6\text{ V}$ )	$I_{EBO}$	—	—	-0.1	$\mu\text{A}$
Collector-emitter saturation voltage ( $I_C / I_B = -50\text{ mA} / -5\text{ mA}$ )	$V_{CE(sat)}$	—	—	-0.5	V
DC current transfer ratio ( $V_{CE} = -6\text{ V}, I_C = -1\text{ mA}$ )	$h_{FE}$	120	—	560	—
Transition frequency ( $V_{CE} = -12\text{ V}, I_E = 2\text{ mA}, f = 30\text{ MHz}$ )	$f_T$	—	140	—	MHz
Output capacitance ( $V_{CB} = -12\text{ V}, I_E = 0\text{ A}, f = 1\text{ MHz}$ )	$C_{ob}$	—	4.0	5.0	pF

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

*	Q	R	S
$h_{FE}$	120-270	180-390	270-560

## L2SA1037AKQLT1G Series

Fig.1 Grounded emitter propagation characteristics

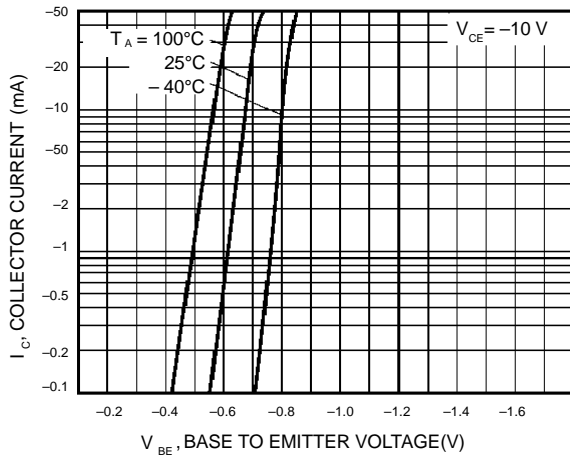


Fig.2 Grounded emitter output characteristics(I)

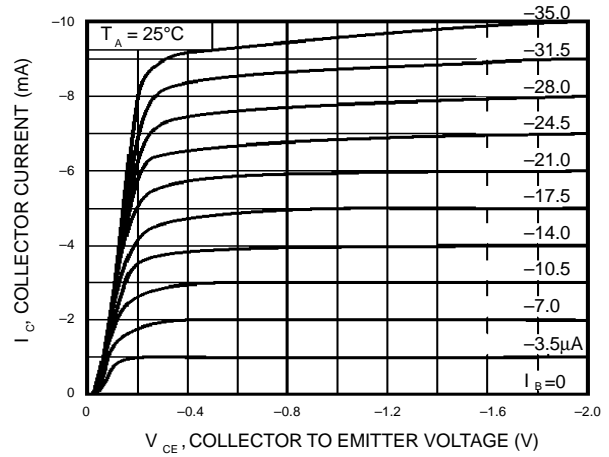


Fig.3 Grounded emitter output characteristics(II)

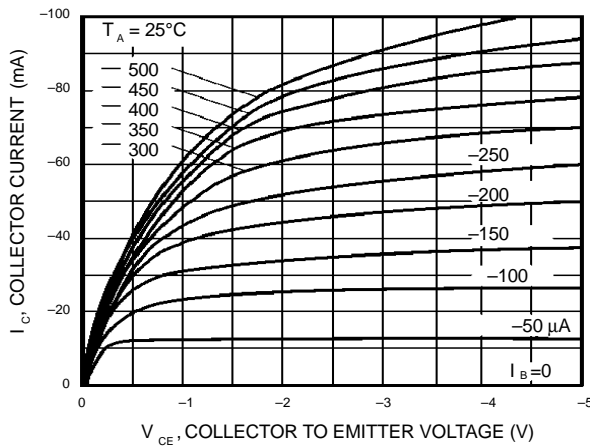


Fig.4 DC current gain vs. collector current (I)

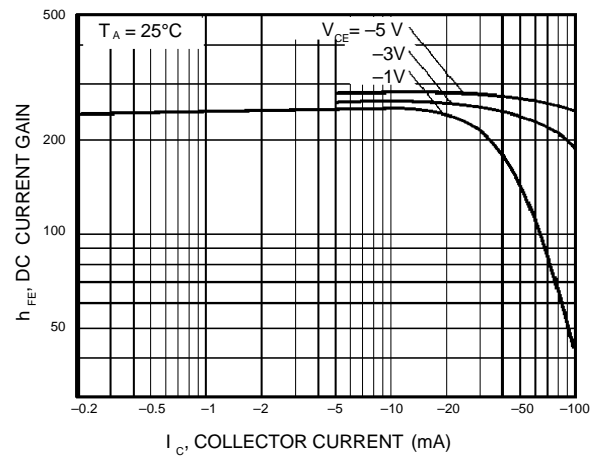


Fig.5 DC current gain vs. collector current (II)

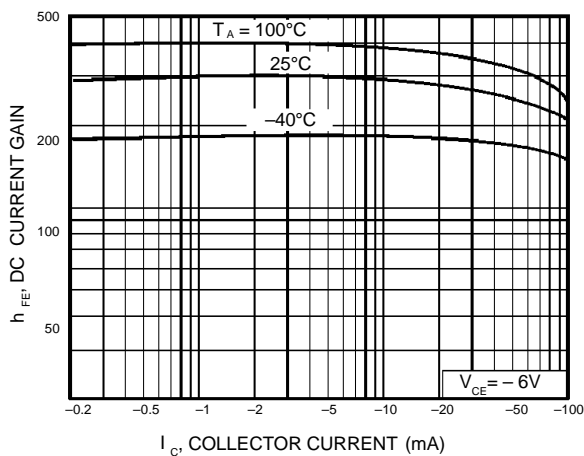
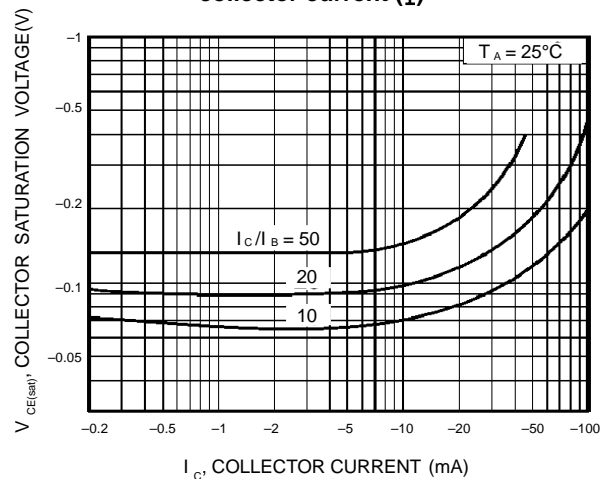
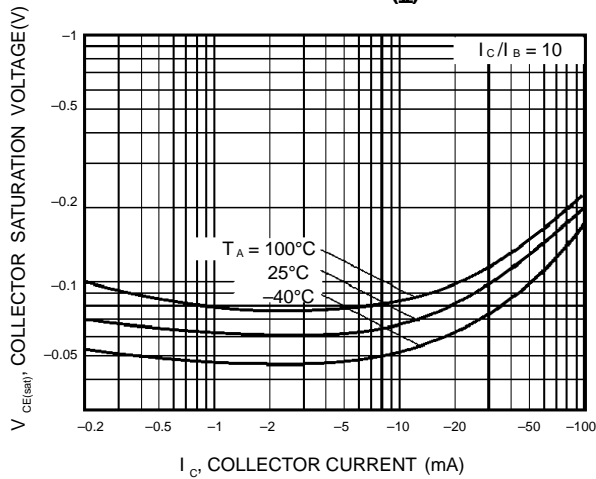


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

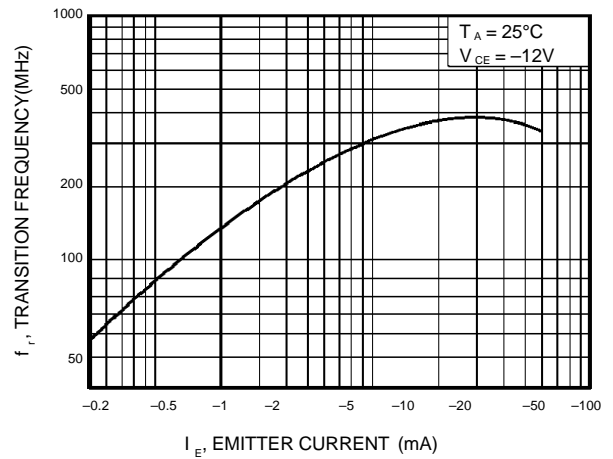


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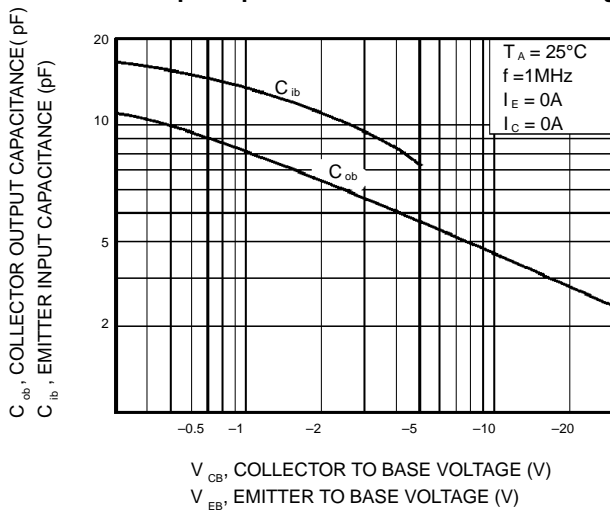
**Fig.7 Collector-emitter saturation voltage vs. collector current (I)**



**Fig.8 Gain bandwidth product vs. emitter current**



**Fig.9 Collector output capacitance vs. collector-base voltage  
Emitter input capacitance vs. emitter-base voltage**

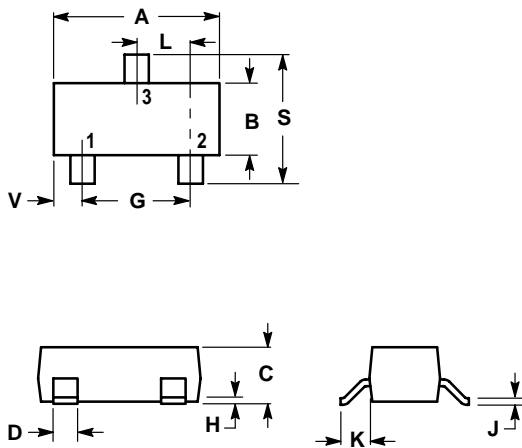


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### SOT-23

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

