

Medium Power Transistor

NPN silicon

FEATURE

- Epitaxial planar type
- Complementary to L2SA1036K
- We declare that the material of product are Halogen Free and 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
L2SC2411KQLT1G S-L2SC2411KQLT1G	CQ	3000/Tape&Reel
L2SC2411KQLT3G S-L2SC2411KQLT3G	CQ	10000/Tape&Reel
L2SC2411KRLT1G S-L2SC2411KRLT1G	CR	3000/Tape&Reel
L2SC2411KRLT3G S-L2SC2411KRLT3G	CR	10000/Tape&Reel

MAXIMUM RATINGS (T_A = 25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CBO}	40	V
Collector-emitter voltage	V _{CEO}	32	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	I _C	0.5	A*
Collector power dissipation	P _C	0.2	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55~+150	°C

*P_C must not be exceeded.

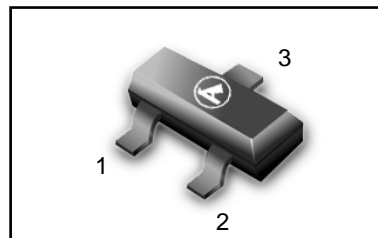
ELECTRICAL CHARACTERISTICS(T_A = 25°C)

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CBO}	40	-	-	V	I _C =100μA
Collector-emitter breakdown voltage	BV _{CEO}	32	-	-	V	I _C =1mA
Emitter-base breakdown voltage	BV _{EBO}	5	-	-	V	I _E =100μA
Collector cutoff current	I _{CBO}	-	-	1	μA	V _{CB} =20V
Emitter cutoff current	I _{EBO}	-	-	1	μA	V _{EB} =4V
DC current transfer ratio	h _{FE}	120	-	390	-	V _{CE} =3V, I _C =100mA
Collector-emitter saturation voltage	V _{CE(sat)}	-	-	0.4	V	I _C /I _B =500mA/50mA
Transition frequency	f _T	-	250	-	MHz	V _{CE} =5V, I _E =-20mA, f=100MHz
Output capacitance	C _{ob}	-	6.0	-	pF	V _{CB} =10V, I _E =0A, f=1MHz

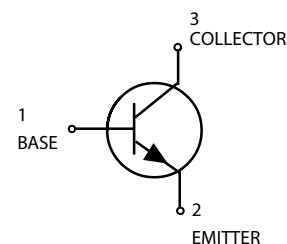
h_{FE} values are classified as follows:

Item	Q	R
h _{FE}	120-270	180-390

L2SC2411KQLT1G
Series
S-L2SC2411KQLT1G
Series



SOT-23 (TO-236AB)



L2SC2411KQLT1G Series
S-L2SC2411KQLT1G Series

Electrical characteristic curves ($T_A = 25\text{ C}$)

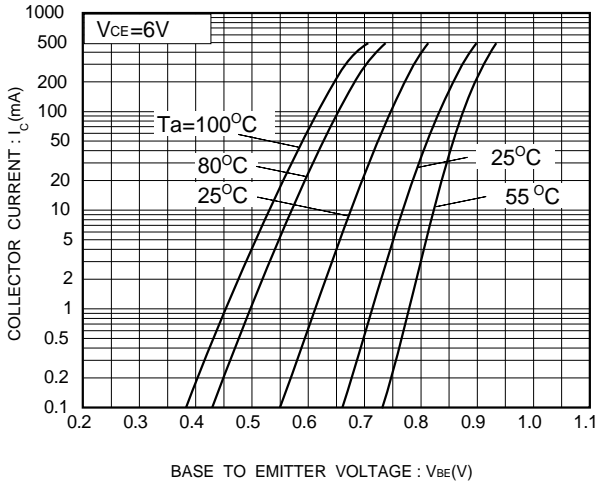


Fig.1 Grounded emitter propagation characteristics

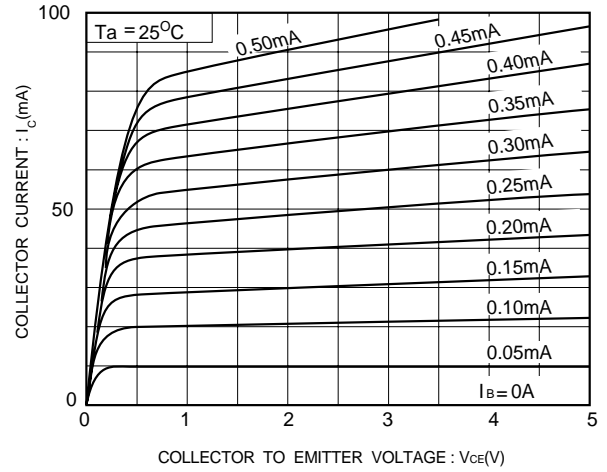


Fig.2 Grounded emitter output characteristics(I)

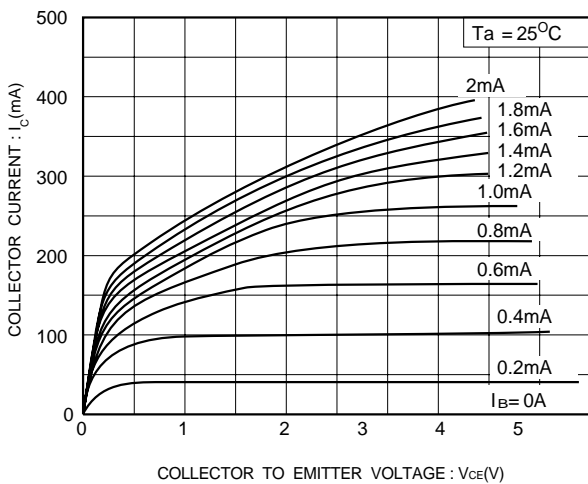


Fig.3 Grounded emitter output characteristics(II)

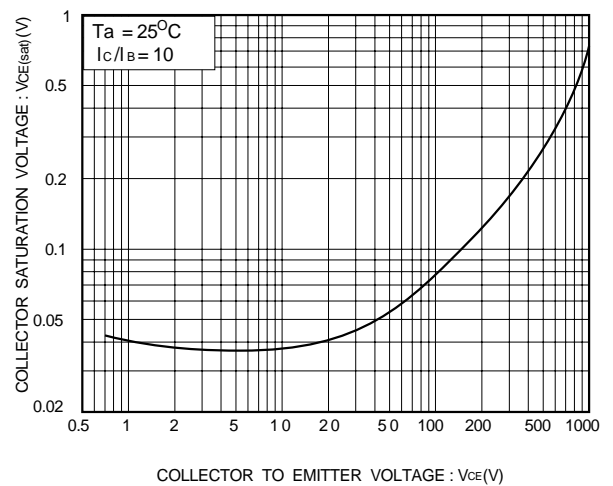


Fig.4 Collector-emitter saturation voltage vs. collector current

Electrical characteristic curves ($T_A = 25^\circ\text{C}$)

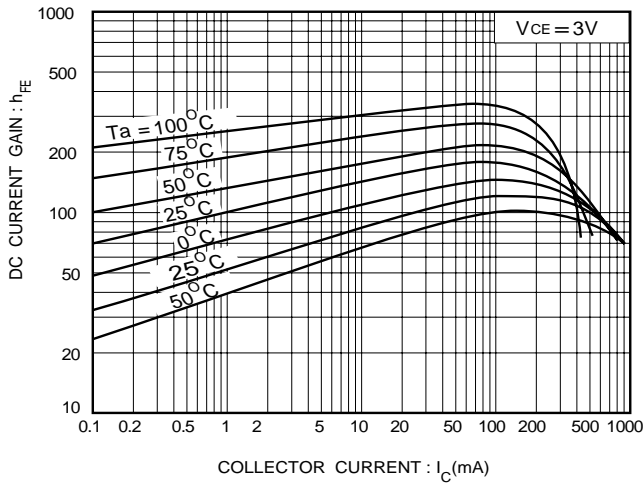


Fig.5 DC current gain vs. collector current

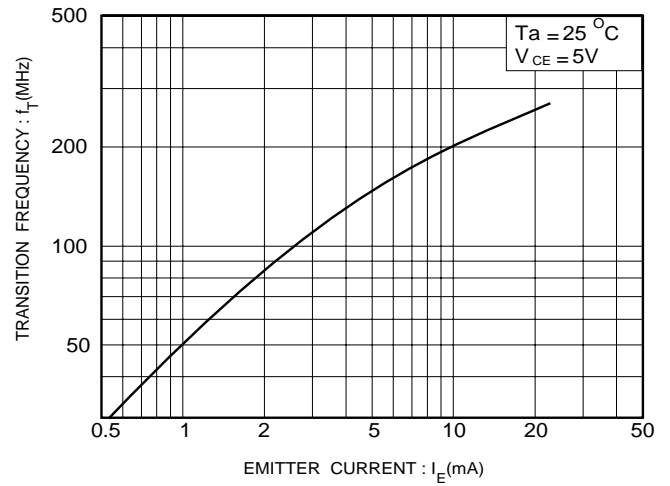


Fig.6 Gain bandwidth product vs. emitter current

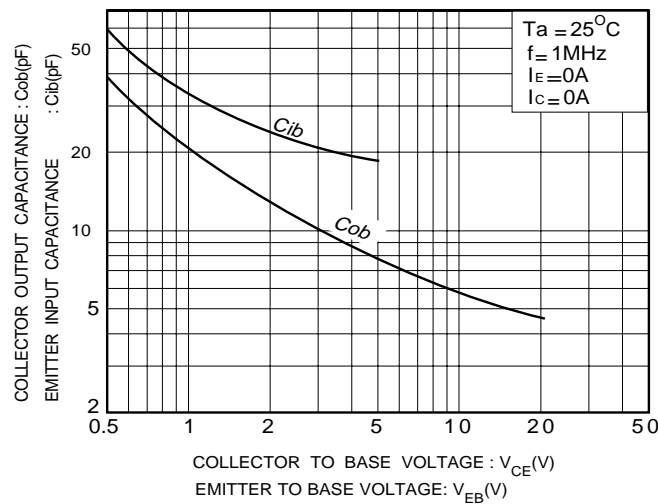
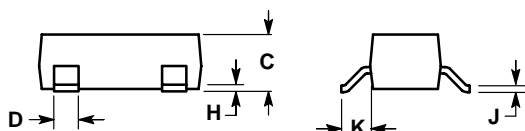
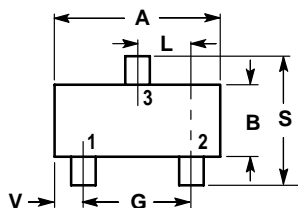


Fig.7 Collector output capacitance vs. collector-base voltage
 Emitter input capacitance vs. emitter-base voltage

L2SC2411KQLT1G Series
S-L2SC2411KQLT1G Series

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

