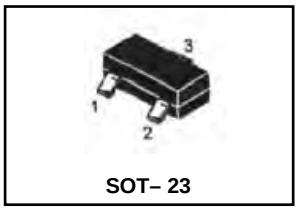
WILLAS

RoHS COMPLIANT

Medium Power Transistor

2SC2411KxLT1

NPN silicon



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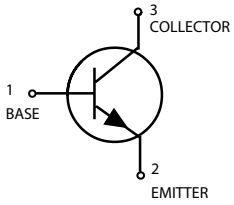
FEATURE

- Epitaxial planar type
- Complementary to 2SA1036K
- We declare that the material of product compliance with RoHS requirements.

Pb-Free package is available

RoHS product for packing code suffix "G"

Halogen free product for packing code suffix "H"



DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
2SC2411KQLT1	CQ	3000/Tape&Reel
2SC2411KRLT1	CR	3000/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 voltgae	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
Collcetor-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

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Electrical characteristic curves(T_A = 25°C)

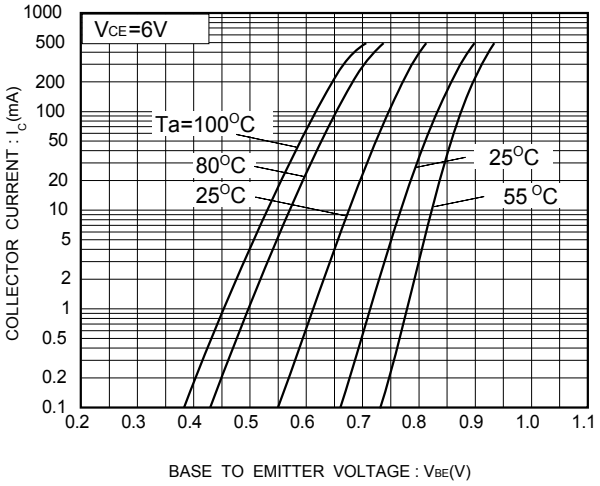

Fig.1 Grounded emitter propagation characteristics

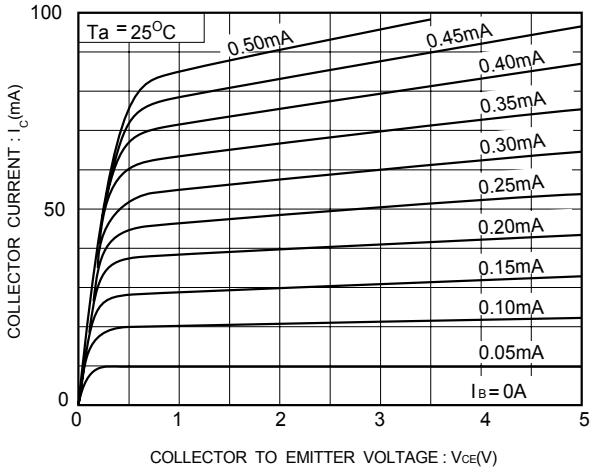

Fig.2 Grounded emitter output characteristics(I)

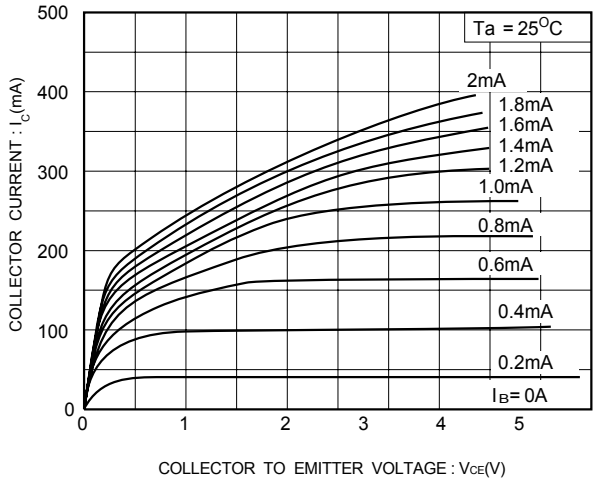

Fig.3 Grounded emitter output characteristics(II)

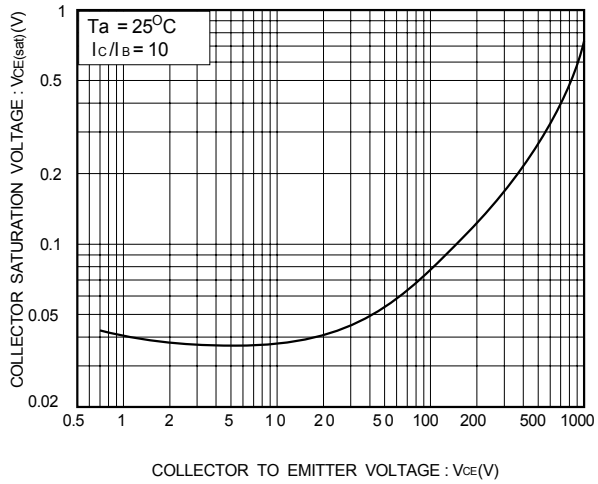

Fig.4 Collector-emitter saturation voltage vs. collector current

Electrical characteristic curves(T_A = 25°C)

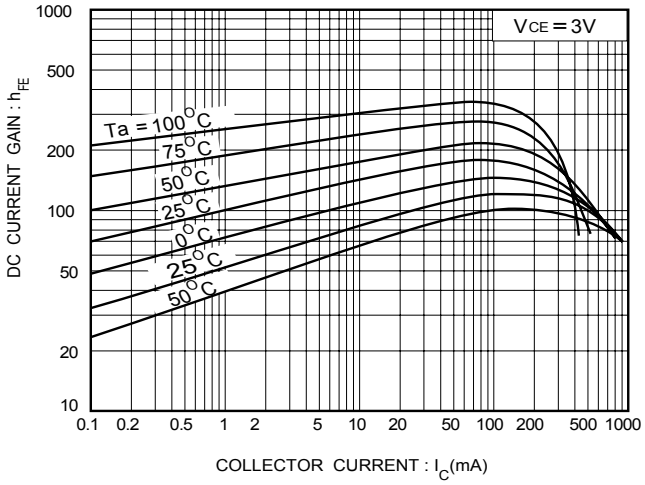

Fig.5 DC current gain vs. collector current

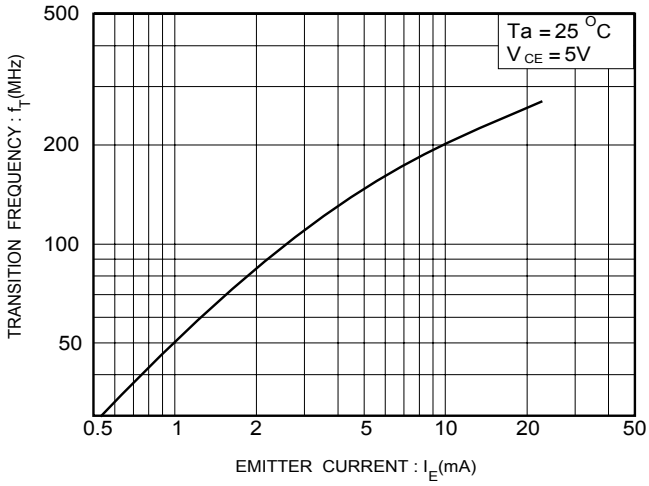

Fig.6 Gain bandwidth product vs. emitter current

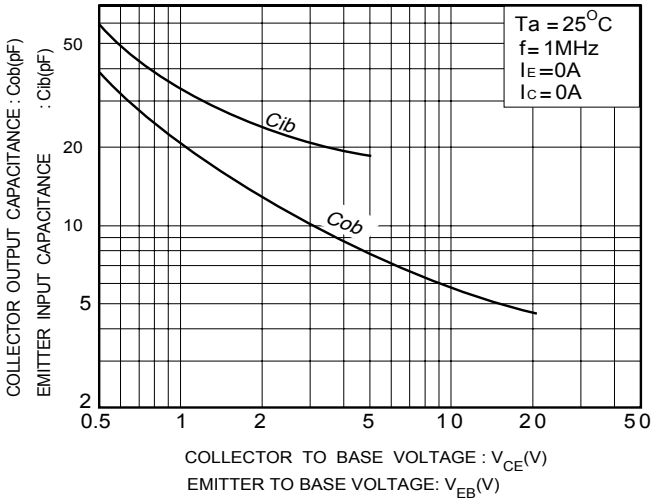

Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

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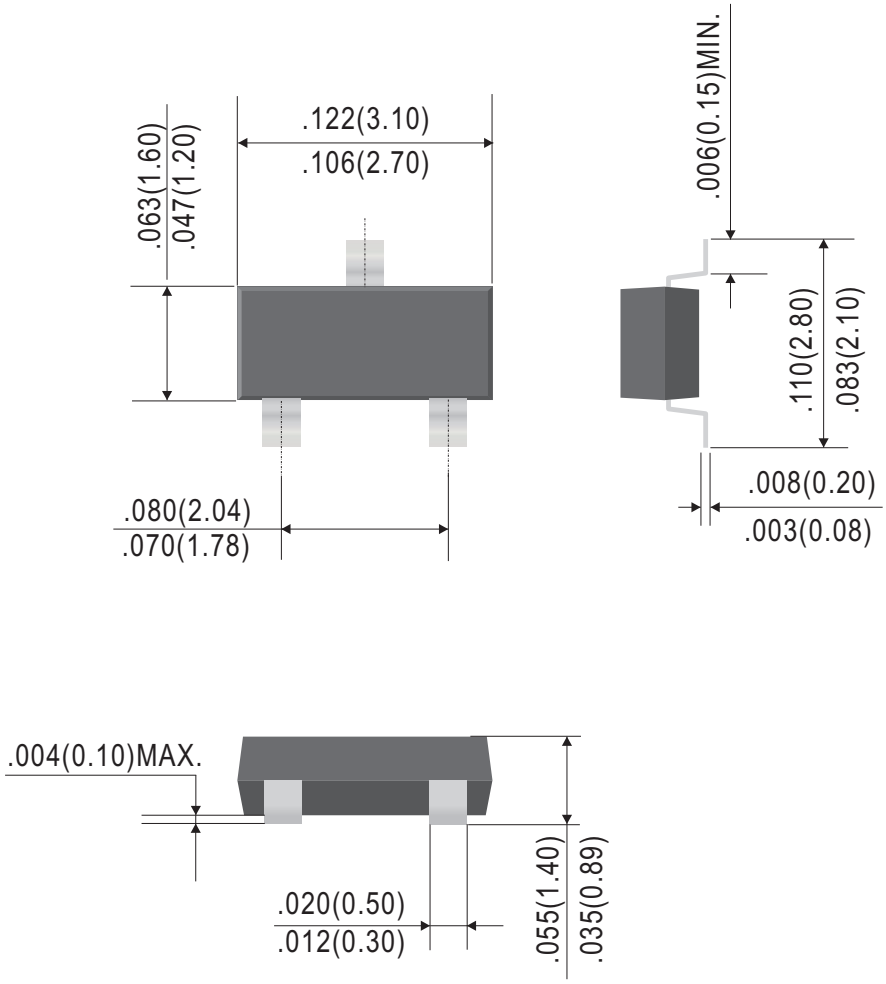

Dimensions in inches and (millimeters)