



WILLAS

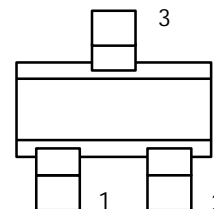


Medium Power Transistor (−32V, −0.5A)

2SA1036KxLT1

●Features

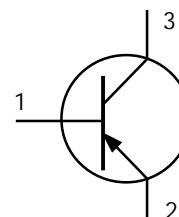
- 1) Large I_c .
 $I_{cMax.} = -500mA$
- 2) Low $V_{CE(sat)}$. Ideal for low-voltage operation.
- 3) We declare that the material of product compliance with RoHS requirements.
Pb-Free package is available
RoHS product for packing code suffix "G"
Halogen free product for packing code suffix "H"



SOT-23

●Structure

Epitaxial planar type
PNP silicon transistor



PNP

●DEVICE MARKING

- | |
|---------------------|
| 1) 2SA1036KQLT1 =HQ |
| 2) 2SA1036KRLT1 =HR |

●Absolute maximum ratings (Ta = 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 MAX. must not be exceeded.

●ORDERING INFORMATION

Device	Package	Shipping
2SA1036KxLT1G	SOT-23	3000/Tape & Reel



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2SA1036KxLT1

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●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	−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
Collector-emitter saturation voltage	V _{CE(sat)}	—	—	−0.4	V	I _C /I _B = −100mA/ −10mA
DC current transfer ration	h _{FE}	120	—	390	—	V _{CE} = −3V, I _C = −10mA
Transition frequency	f _T	—	200	—	MHz	V _{CE} = −5V, I _E =20mA, f=100MHz
Output capacitance	C _{ob}	—	7	—	pF	V _{CB} = −10V, I _E =0A, f=1MHz

●hFE values are classified as follows.

Item	Q	R
Hfe	120~270	180~390



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●Electrical characteristic curves

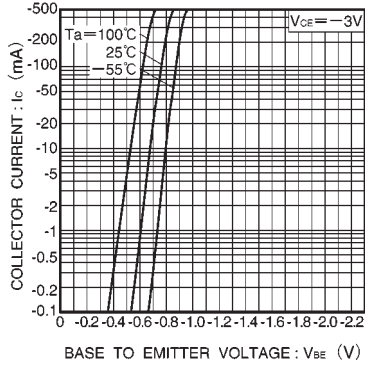


Fig.1 Grounded emitter propagation

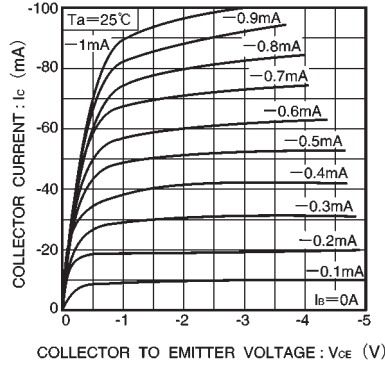


Fig.2 Grounded emitter output characteristics (I)

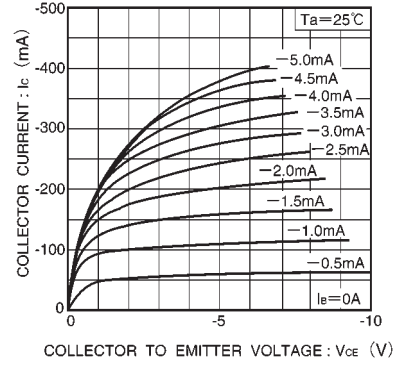


Fig.3 Grounded emitter output characteristics (II)

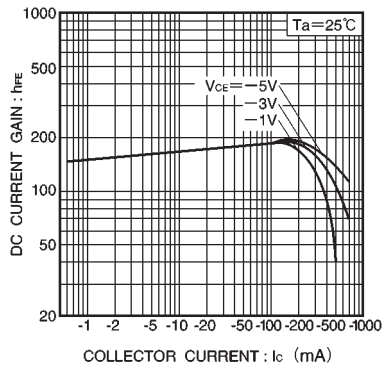


Fig.4 DC current gain vs. collector current (I)

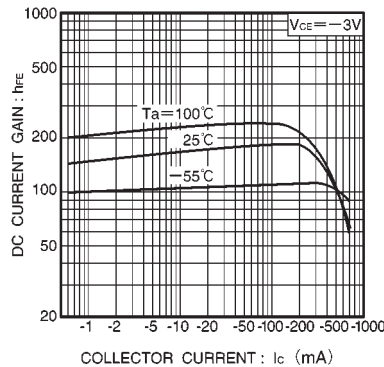


Fig.5 DC current gain vs. collector current (II)

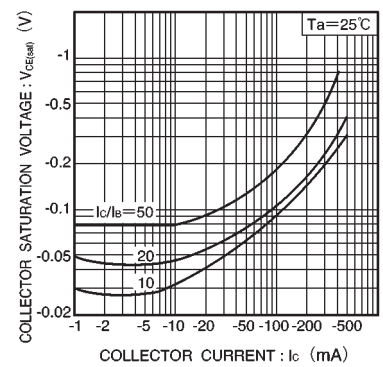


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

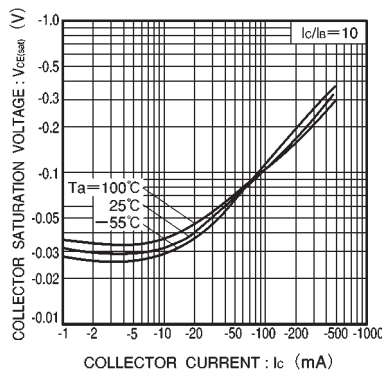


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

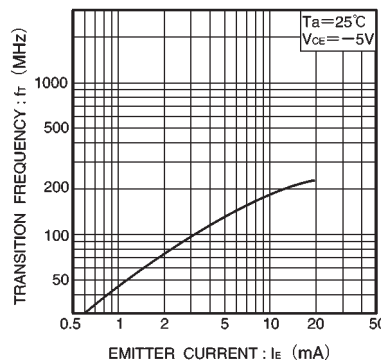


Fig.8 Gain bandwidth product vs. emitter current

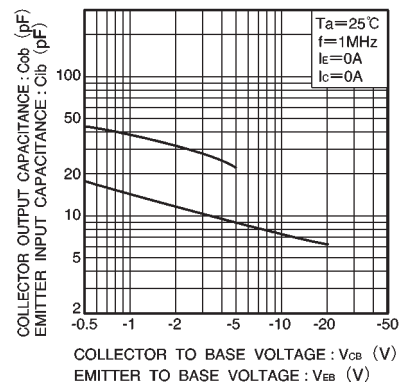


Fig.9 Collector output capacitance vs. collector-base voltage. Emitter input capacitance vs. emitter-base voltage



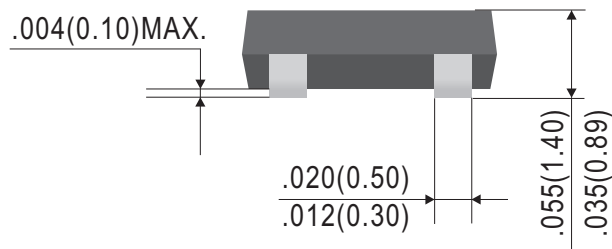
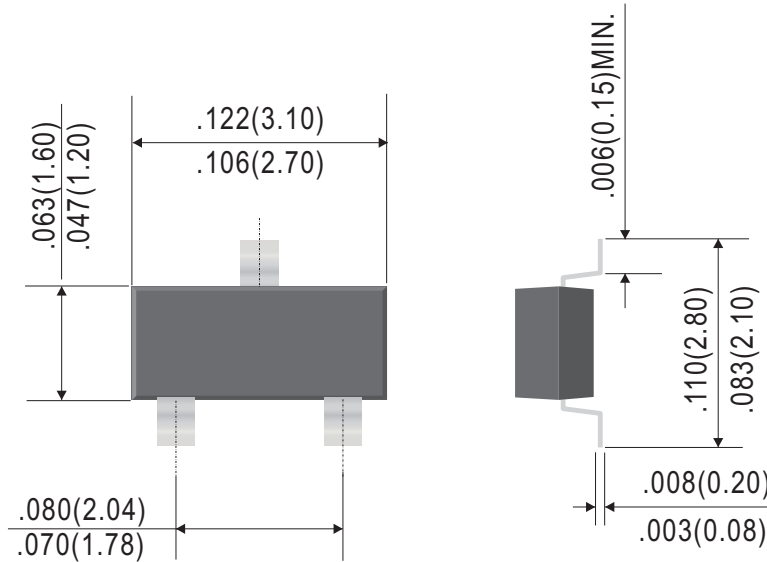
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Dimensions in inches and (millimeters)

