2SC3052

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

2SC3052 is a mini package resin sealed silicon NPN epitaxial transistor,

It is designed for low frequency voltage application.

FEATURE

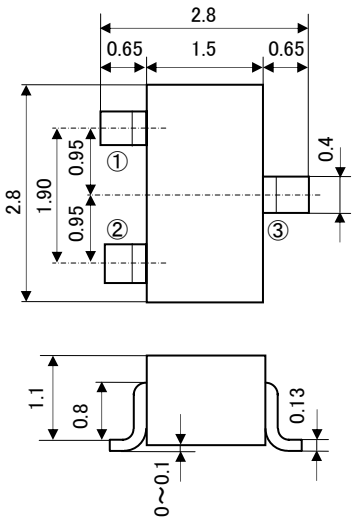
- Small collector to emitter saturation voltage.
  VCE(sat)=0.3V max(@IC=100mA/IB=10mA)
- Excellent linearity of DC forward current gain.
- Super mini package for easy mounting

APPLICATION

For Hybrid IC, Small type machine low frequency voltage amplify application.

OUTLINE DRAWING

Unit:mm



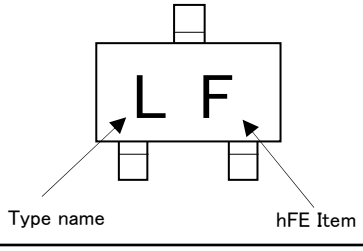
TERMINAL CONNECTER
①:BASE
②:EMITTER
③:COLLECTOR

JEITA:SC-59
JEDEC:Similar to TO-236

MAXIMUM RATINGS(Ta=25℃)

Parameter	Symbol	Ratings	Unit
Collector to Base voltage	V_{CBO}	50	V
Emitter to Base voltage	V_{EBO}	6	V
Collector to Emitter voltage	V_{CEO}	50	V
Collector current	I_O	200	mA
Collector dissipation	P_c	200	mW
Junction temperature	T_j	+150	℃
Storage temperature	T_{stg}	−55～+150	℃

MARKING



ELECTRICAL CHARACTERISTICS(Ta=25℃)

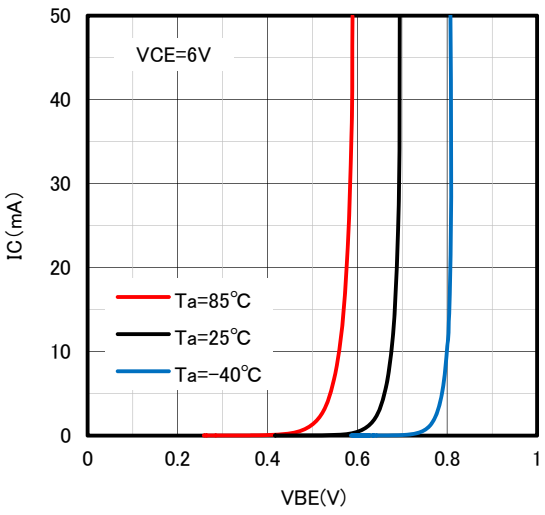
Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E breakdown voltage	V(BR)CEO	I_C=100μA ,R_{BE}=∞	50	−	−	V
Collector cut off current	ICBO	V_{CB}=50V, I_E=0mA	−	−	0.1	μA
Emitter cut off current	IEBO	V_{EB}=6V, I_C=0mA	−	−	0.1	μA
DC forward current gain ※	hFE	V_{CE}=6V, I_C=1mA	150	−	500	−
DC forward current gain	hFE	V_{CE}=6V, I_C=0.1mA	100	−	−	−
C to E Saturation voltage	VCE(sat)	I_C=100mA ,I_B=10mA	−	−	0.3	V
B to E Saturation voltage	VBE(sat)	I_C=100mA ,I_B=10mA	−	−	1.0	V
Gain bandwidth product	fT	V_{CE}=6V, I_E=−10mA	−	200	−	MHz
Collector output capacitance	Cob	V_{CB}=6V, I_E=0,f=1MHz	−	2.5	−	pF
Noise figure	NF	V_{CE}=6V, I_E=−0.1mA,f=1kHz,RG=2kΩ	−	−	15	dB

※) It shows hFE classification at right table.

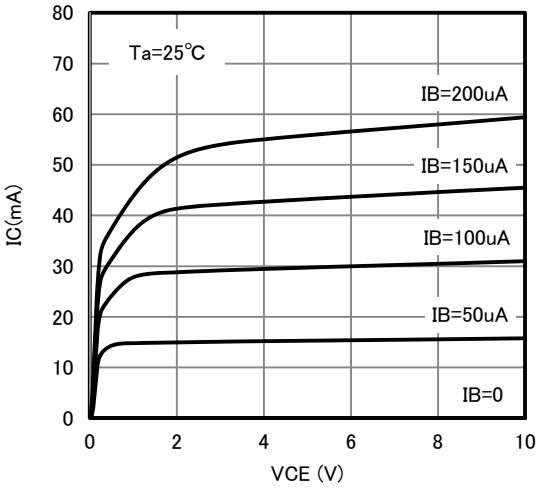
Item	E	F
hFE Item	150～300	250～500

TYPICAL CHARACTERISTICS

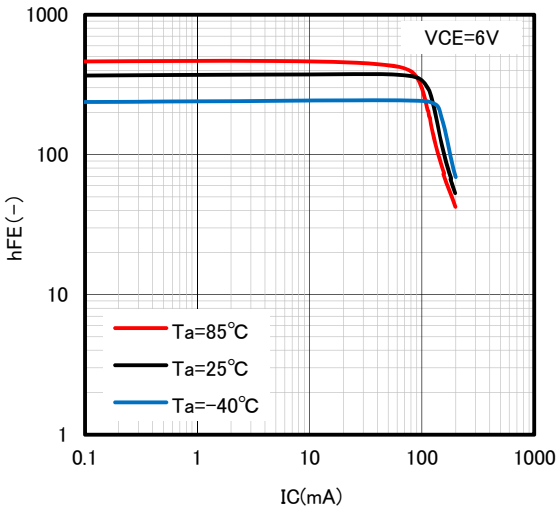
IC-VBE



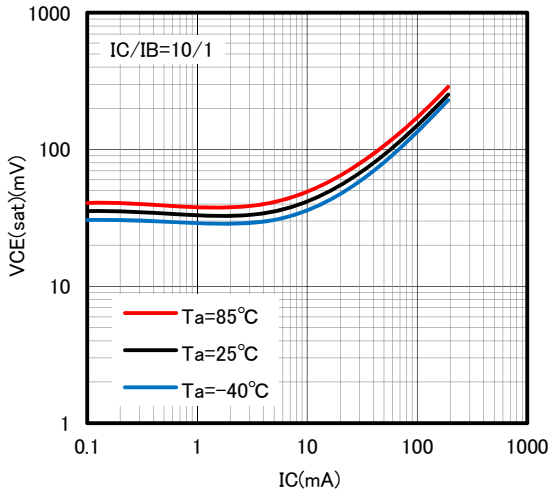
IC-VCE



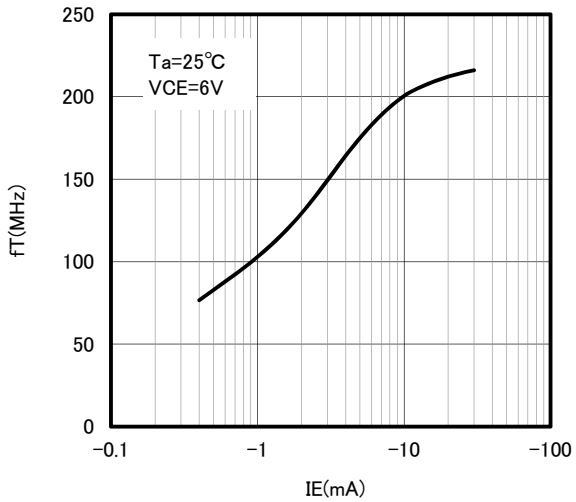
hFE-IC



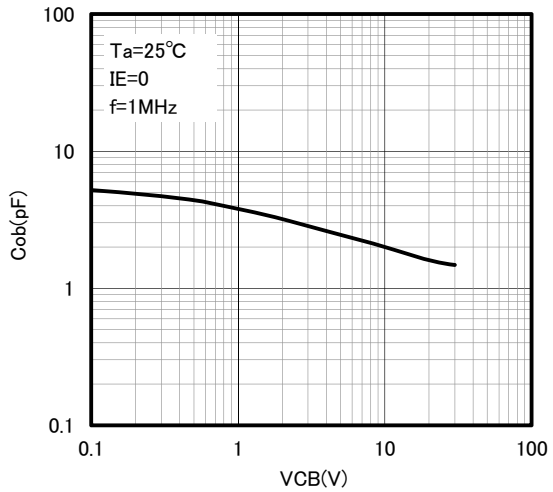
VCE(sat)-IC



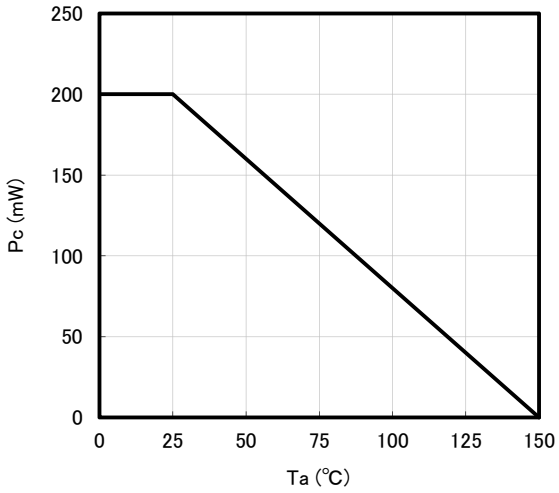
fT-IE



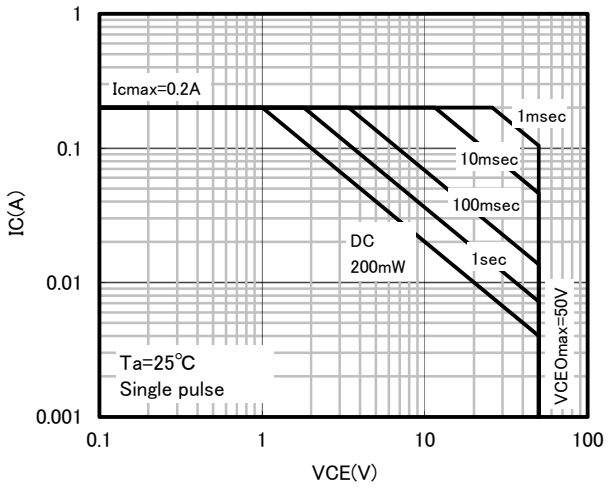
Cob-VCB



Pc–Ta


250
200
150
100
50
0
Pc (mW)
0
25
50
75
100
125
150
Ta (℃)

ASO


1
0.1
0.01
0.001
IC(A)
Icmax=0.2A
1msec
10msec
100msec
1sec
DC
200mW
Ta=25℃
Single pulse
VCEOmax=50V
0.1
1
10
100
VCE(V)

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