INA6005BC1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

INA6005BC1 is a silicon PNP transistor.
It is designed with high voltage.

FEATURE

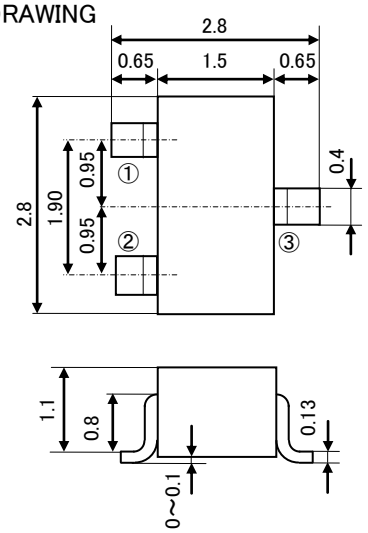
・Super mini package for easy mounting
・High voltage V_{CEO}=−400V

APPLICATION

DC/DC convertor, High voltage switching

OUTLINE DRAWING

UNIT : mm



Terminal Connector
①:Base
②:Emitter
③:Collector

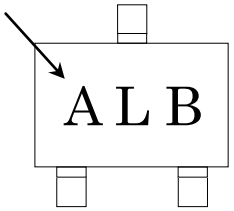
JEITA:SC-59
JEDEC: Similar to TO-236

MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	−400	V
V_{EBO}	Emitter to Base voltage	−7	V
V_{CEO}	Collector to Emitter voltage	−400	V
I_C	Collector current	−100	mA
I_{CM}	Peak collector current	−200	mA
P_C	Collector dissipation(Ta=25℃)	200	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

MARKING

Type Name

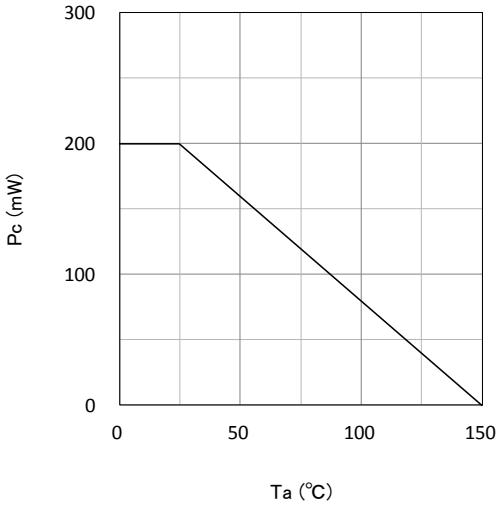


ELECTRICAL CHARACTERISTICS (Ta=25℃)

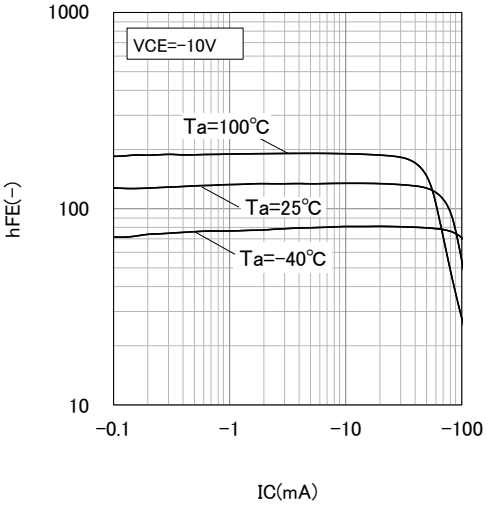
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B break down voltage	I_C=−50uA, I_E=0mA	−400	−	−	V
$V_{(BR)EBO}$	E to B break down voltage	I_E=−50uA, I_C=0mA	−7	−	−	V
$V_{(BR)CEO}$	C to E break down voltage	I_C=−1mA, R_{BE}=∞	−400	−	−	V
I_{CBO}	Collector cut off current	V_{CB}=−400V, I_E=0mA	−	−	−1	uA
I_{EBO}	Emitter cut off current	V_{EB}=−6V, I_C=0mA	−	−	−1	uA
h_{FE}	DC forward current gain	V_{CE}=−10V, I_C=−10mA	82	−	200	−
$V_{CE(sat)}$	C to E saturation voltage	I_C=−20mA, I_B=−2mA	−	−	−0.6	V
f_T	Gain bandwidth product	V_{CE}=−20V, I_E=10mA, f=100MHz	−	65	−	MHz
Cob	Collector output capacitance	V_{CB}=−10V, I_E=0mA, f=1MHz	−	5.5	−	pF

TYPICAL CHARACTERISTICS

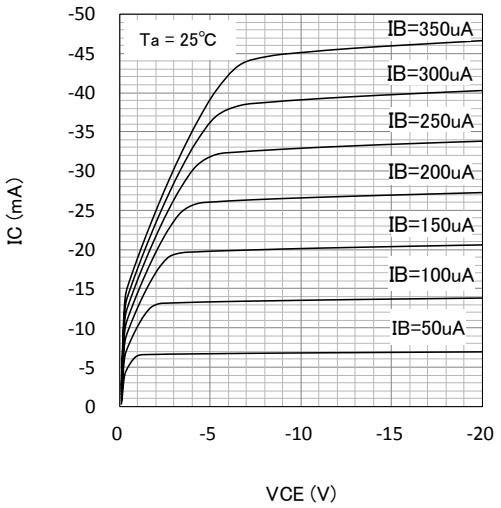
Pc – Ta



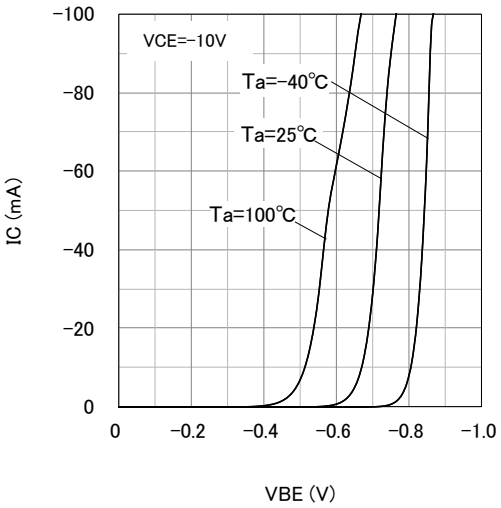
hFE–IC



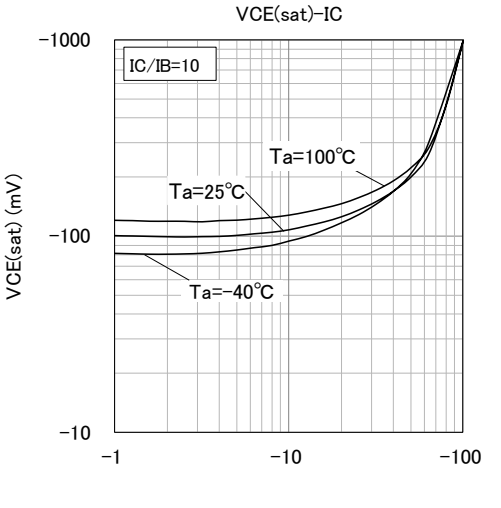
IC–VCE



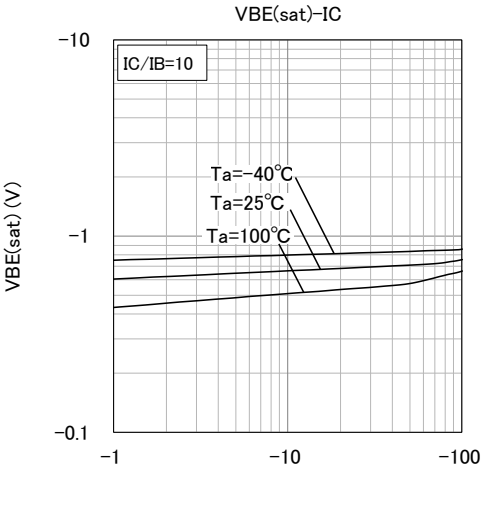
IC–VBE



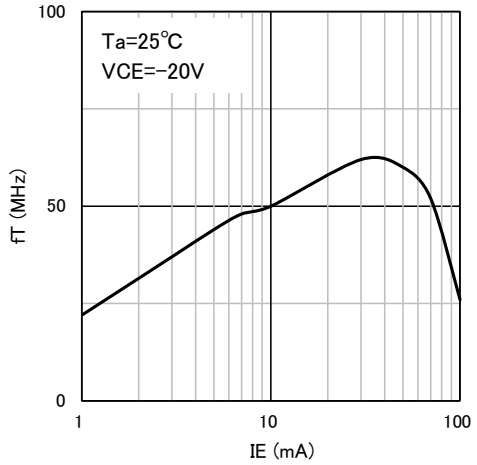
VCE(sat)–IC



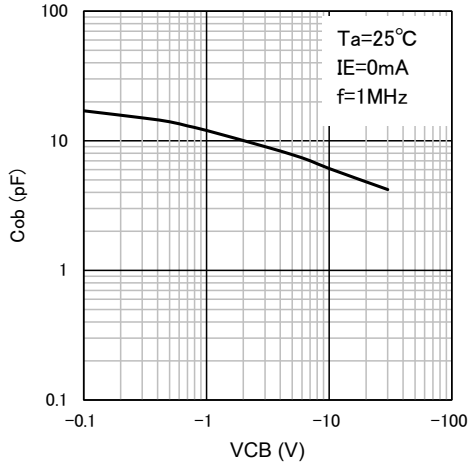
VBE(sat)–IC



fT-IE


100
50
0
1
10
100
fT (MHz)
IE (mA)
Ta=25°C
VCE=−20V

Cob-VCB


100
10
1
0.1
−0.1
−1
−10
−100
Cob (pF)
VCB (V)
Ta=25°C
IE=0mA
f=1MHz

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