PRELIMINARY

Notice : This is not a final specification

Some parametric are subject to change.

INA6006AC1

FOR LOW FREQUENCY AMPLIFY APPLICATION

SILICON PNP EPITAXIAL TYPE

DESCRIPTION

INA6006AC1 is a silicon PNP transistor.

It is designed with high voltage.

FEATURE

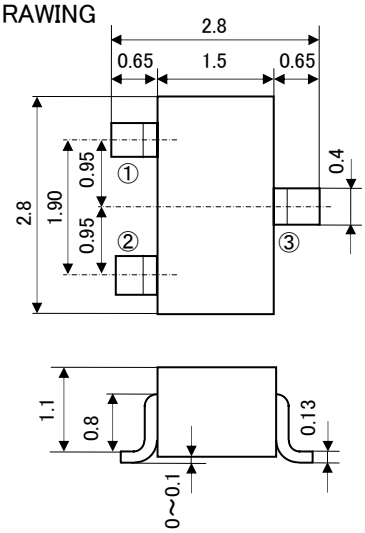
- Small package for easy mounting.
- High voltage V_{CEO} = −150V
- Low voltage VCE(sat) = −0.5V(MAX)
- Complementary : INC6006AC1

APPLICATION

High voltage switching.

OUTLINE DRAWING

UNIT : mm



Terminal Connector

①: Base

②: Emitter

③: Collector

JEITA:SC-59

JEDEC: Similar to TO-236

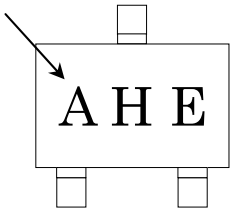
MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	−160	V
V_{EBO}	Emitter to Base voltage	−5	V
V_{CEO}	Collector to Emitter voltage	−150	V
I_{CM}	Peak collector current	−200	mA
I_C	Collector current	−100	mA
P_C	Collector dissipation(Ta=25℃)	200	mW
		500(*)	
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

*Mounted on glass epoxy board(46mm × 19mm × 1mm)

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=−100μA, I_E=0mA	−160	−	−	V
$V_{(BR)EBO}$	E to B break down voltage	I_E=−10μA, I_C=0mA	−5	−	−	V
$V_{(BR)CEO}$	C to E break down voltage	I_C=−1mA, R_{BE}=∞	−150	−	−	V
I_{CBO}	Collector cut off current	V_{CB}=−120V, I_E=0mA	−	−	−100	nA
I_{EBO}	Emitter cut off current	V_{EB}=−3V, I_C=0mA	−	−	−100	nA
hFE1	DC forward current gain1	VCE=−5V, I_C=−1mA	45	−	−	−
hFE2	DC forward current gain2	VCE=−5V, I_C=−10mA	90	−	270	−
hFE3	DC forward current gain3	VCE=−5V, I_C=−50mA	45	−	−	−
VCE(sat)1	C to E saturation voltage1	I_C=−10mA, I_B=−1mA	−	−	−0.2	V
VCE(sat)2	C to E saturation voltage2	I_C=−50mA, I_B=−5mA	−	−	−0.5	V
VBE(sat)1	B to E saturation voltage1	I_C=−10mA, I_B=−1mA	−	−	−1.0	V
VBE(sat)2	B to E saturation voltage2	I_C=−50mA, I_B=−5mA	−	−	−1.0	V
VBE(on)	B to E on voltage	VCE=−5V, I_C=−10mA	−	−	−0.77	V
fT	Gain bandwidth product	VCE=−10V, I_E=10mA	100	−	300	MHz
Cob	Collector output capacitance	VCB=−10V, I_E=0mA, f=1MHz	−	2.8	6	pF

PRELIMINARY

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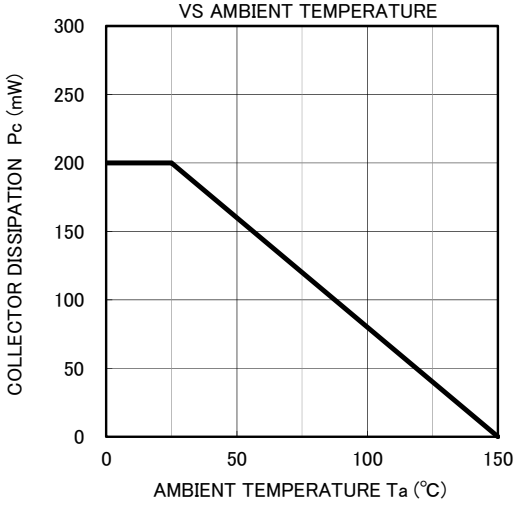
INA6006AC1

FOR LOW FREQUENCY AMPLIFY APPLICATION

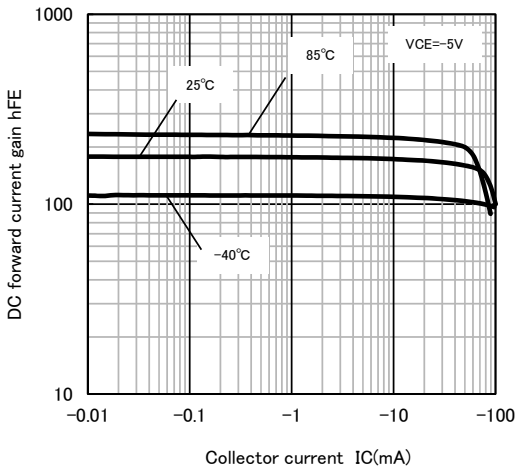
SILICON PNP EPITAXIAL TYPE

TYPICIAL CHARACTERISTICS

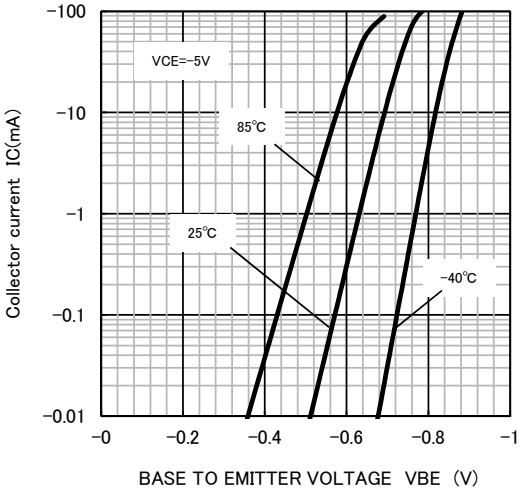
COLLECTOR DISSIPATION VS AMBIENT TEMPERATURE



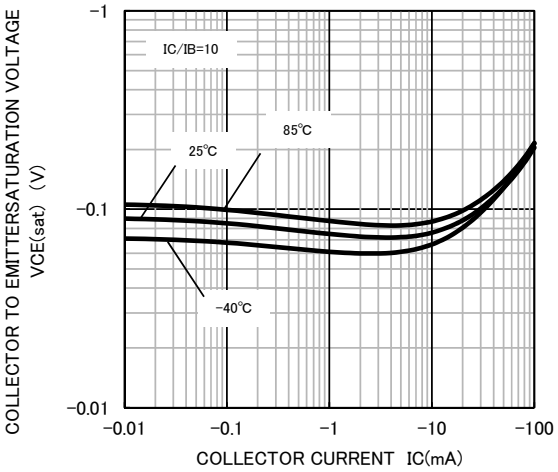
DC forward current gain VS. Collector current



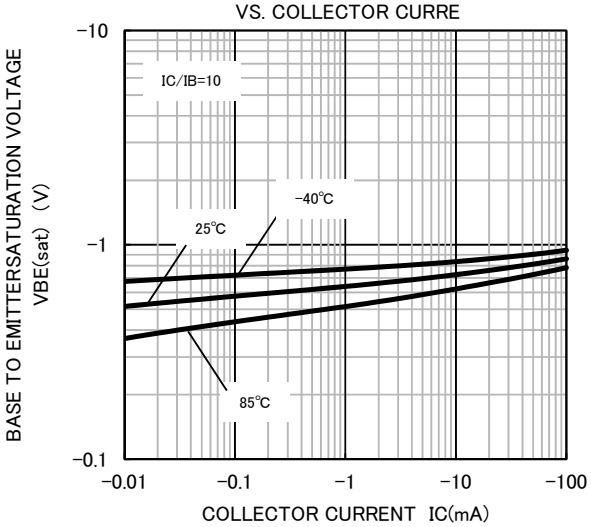
COMMON EMITTER TRANSFER



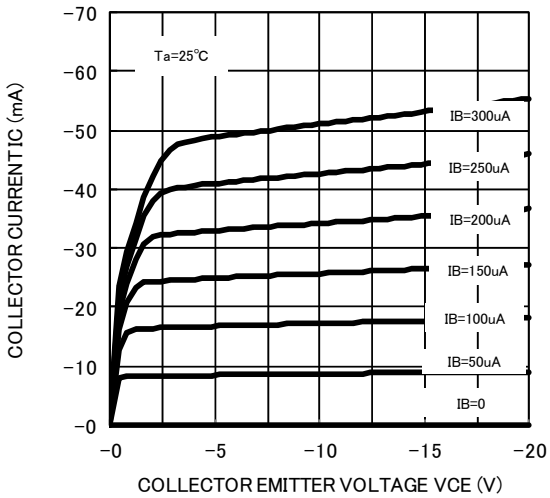
COLLECTOR TO EMITTERSATURATION VOLTAGE VS. COLLECTOR CURRENT



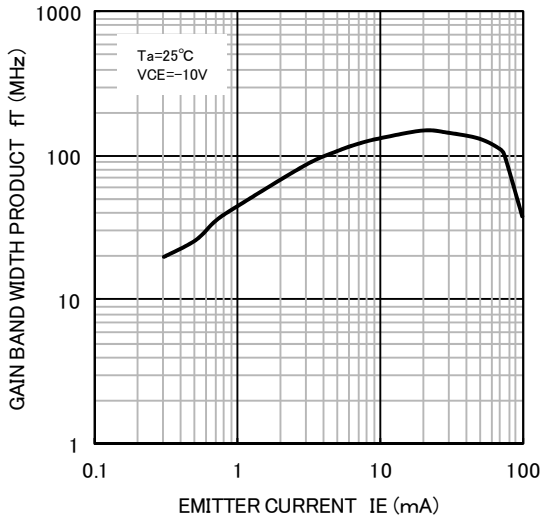
BASE TO EMITTERSATURATION VOLTAGE VS. COLLECTOR CURRE



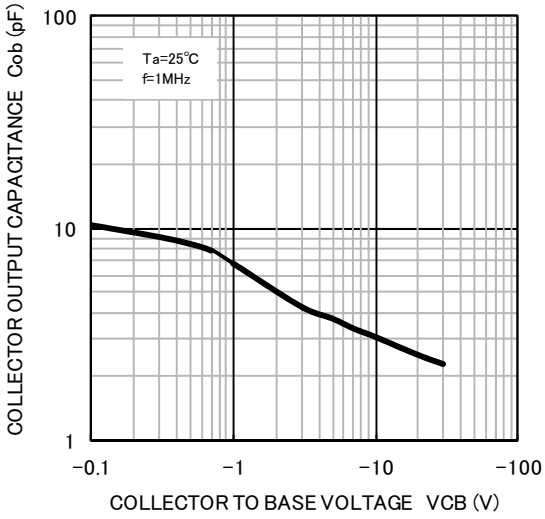
COMMON EMITTER OUTPUT



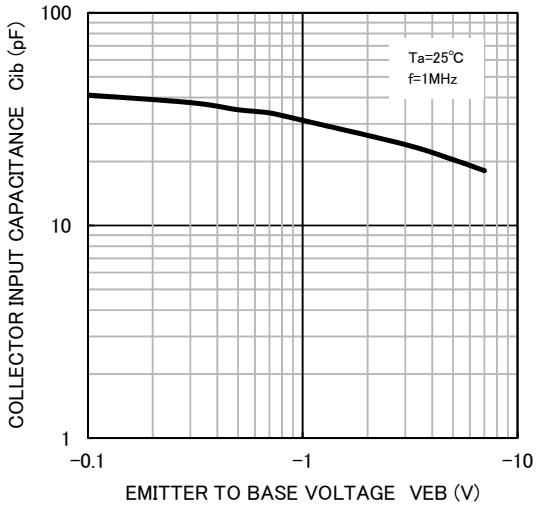
GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE



COLLECTOR INPUT CAPACITANCE
VS. BASE TO EMITTER VOLTA



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Mar.2013