<SMALL-SIGNAL TRANSISTOR>

INA6006AP1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

INA6006AP1 is a silicon PNP transistor.

It is designed with high voltage.

FEATURE

・Small package for easy mounting.

・High voltage V_{CEO} = −150V

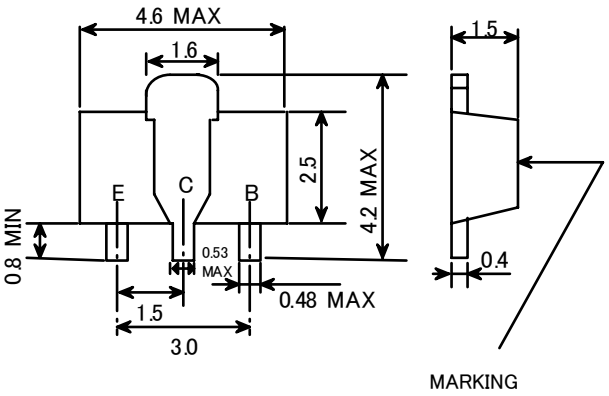
・Low voltage VCE(sat) = −0.5V(MAX)

・Complementary : INC6006AP1

APPLICATION

High voltage switching.

OUTLINE DRAWING UNIT:mm



TERMINAL CONNECTOR

E:EMITTER JEITA:SC-62

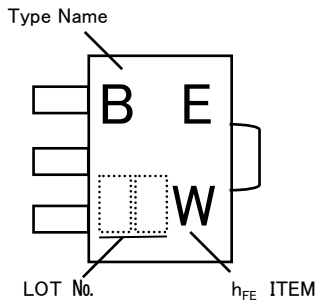
C:COLLECTOR JEDEC:SOT-89

B:BASE

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℃)	500	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

MARKING



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

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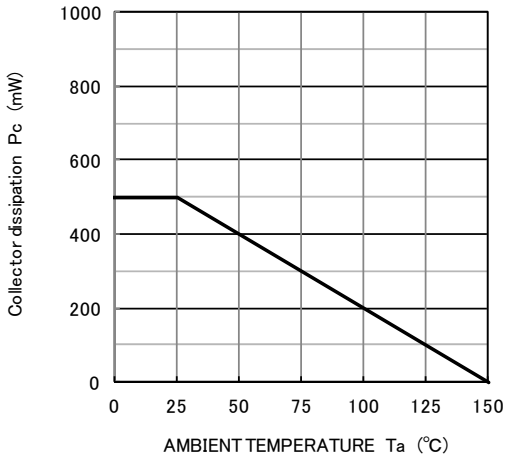
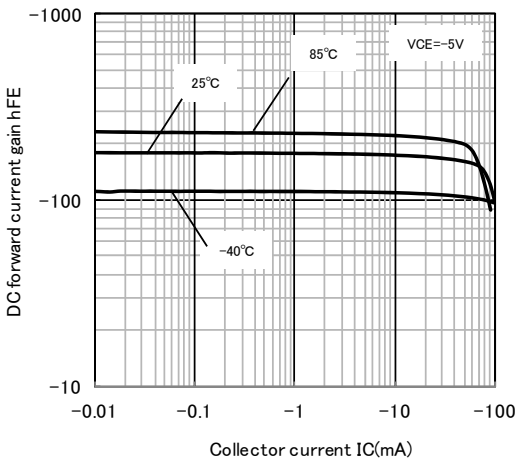
TYPICIAL CHARACTERISTICS

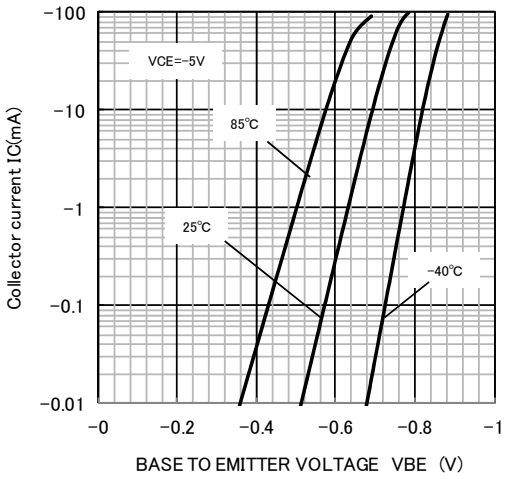
Collector dissipation-AMBIENT TEMPERATURE



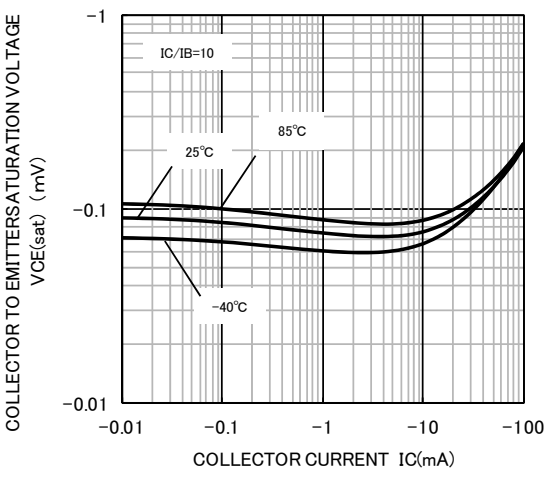
DC forward current gain VS. Collector current



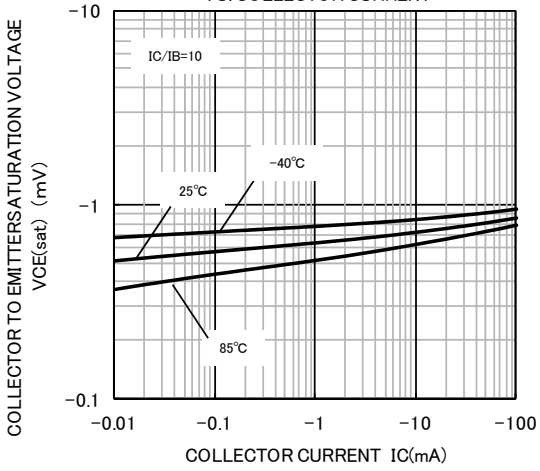
COMMON EMITTER TRANSFER



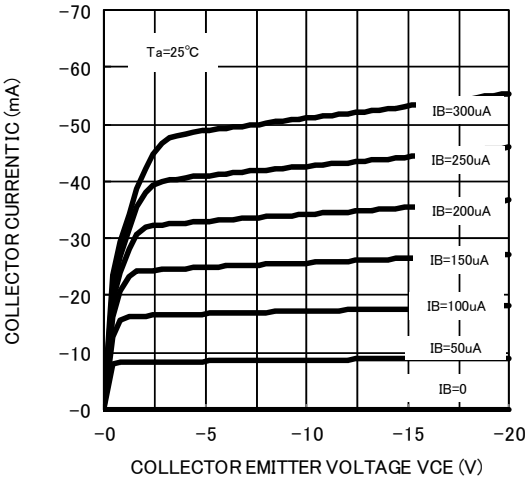
COLLECTOR TO EMITTERSATURATION
VOLTAGE VS. COLLECTOR CURRENT



BASE TO EMITTERSATURATION VOLTAGE
VS. COLLECTOR CURRENT



COMMON EMITTER OUTPUT



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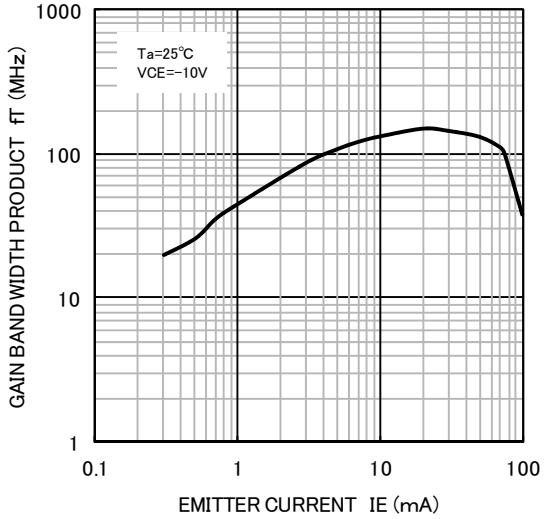
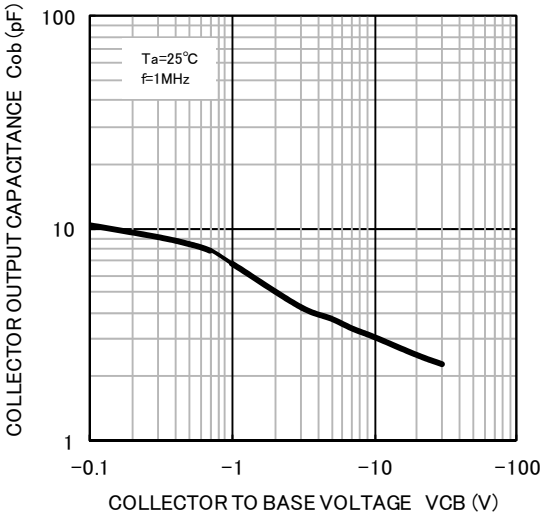
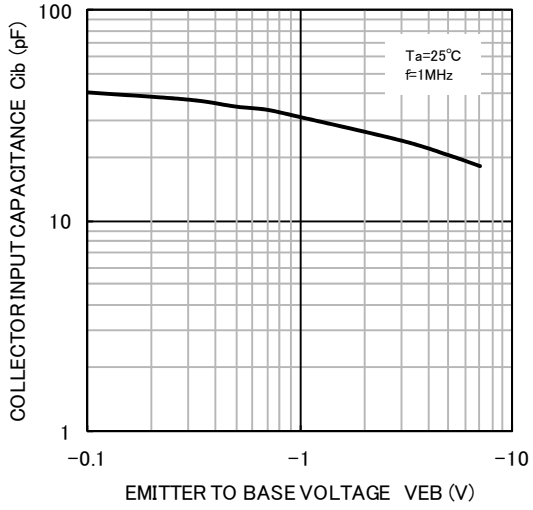
GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



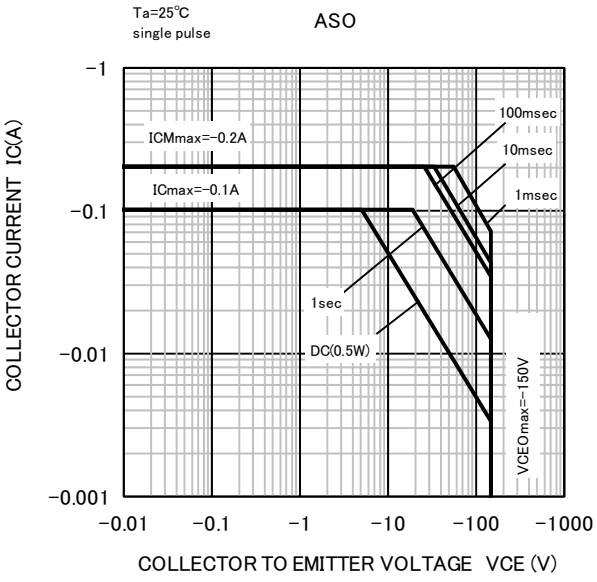
COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE



COLLECTOR INPUT CAPACITANCE
VS. BASE TO EMITTER VOLTAGE



ASO



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