

INA6006AP1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

INA6006AP1 is a silicon PNP transistor.

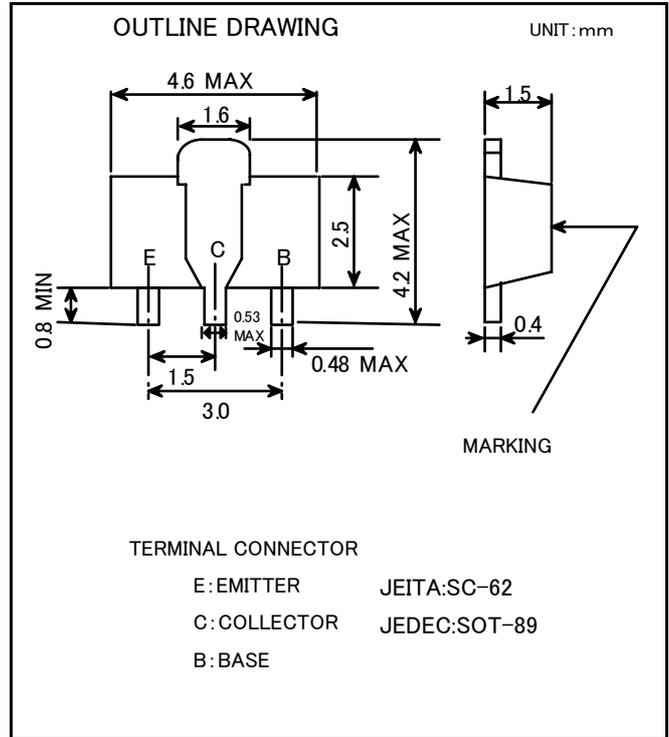
It is designed with high voltage.

FEATURE

- Small package for easy mounting.
- High voltage $V_{CEO} = -150V$
- Low voltage $V_{CE(sat)} = -0.5V(\text{MAX})$
- Complementary : INC6006AP1

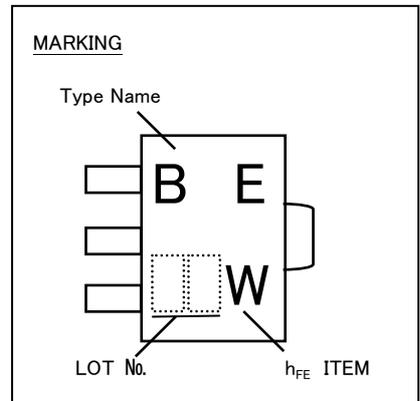
APPLICATION

High voltage switching.



MAXIMUM RATING (Ta=25°C)

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°C)	500	mW
T_j	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55 ~ +150	°C



ELECTRICAL CHARACTERISTICS (Ta=25°C)

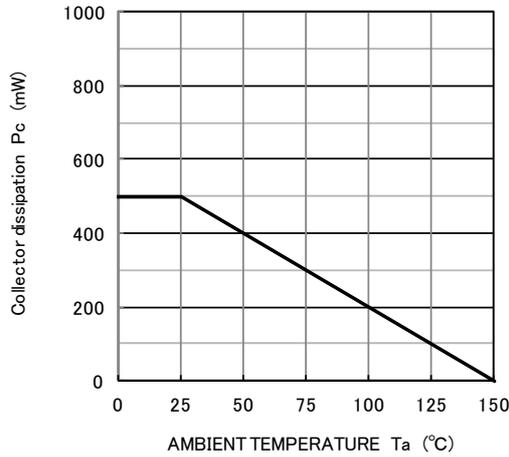
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B break down voltage	$I_C = -100 \mu A, I_E = 0mA$	-160	-	-	V
$V_{(BR)EBO}$	E to B break down voltage	$I_E = -10 \mu A, I_C = 0mA$	-5	-	-	V
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -1mA, R_{BE} = \infty$	-150	-	-	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	$V_{CE} = -5V, I_C = -1mA$	45	-	-	-
hFE2	DC forward current gain2	$V_{CE} = -5V, I_C = -10mA$	90	-	270	-
hFE3	DC forward current gain3	$V_{CE} = -5V, I_C = -50mA$	45	-	-	-
$V_{CE(sat)1}$	C to E saturation voltage1	$I_C = -10mA, I_B = -1mA$	-	-	-0.2	V
$V_{CE(sat)2}$	C to E saturation voltage2	$I_C = -50mA, I_B = -5mA$	-	-	-0.5	V
$V_{BE(sat)1}$	B to E saturation voltage1	$I_C = -10mA, I_B = -1mA$	-	-	-1.0	V
$V_{BE(sat)2}$	B to E saturation voltage2	$I_C = -50mA, I_B = -5mA$	-	-	-1.0	V
$V_{BE(on)}$	B to E on voltage	$V_{CE} = -5V, I_C = -10mA$	-	-	-0.77	V
fT	Gain bandwidth product	$V_{CE} = -10V, I_E = 10mA$	100	-	300	MHz
Cob	Collector output capacitance	$V_{CB} = -10V, I_E = 0mA, f = 1MHz$	-	2.8	6	pF

INA6006AP1

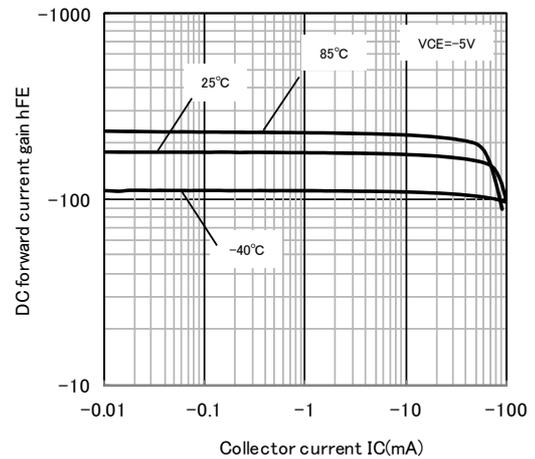
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TYPICAL CHARACTERISTICS

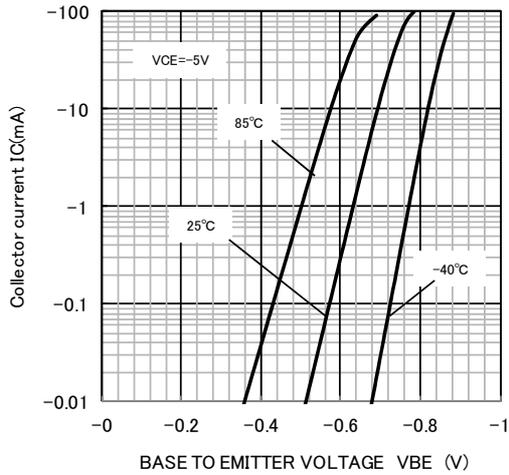
Collector dissipation-AMBIENT TEMPERATURE



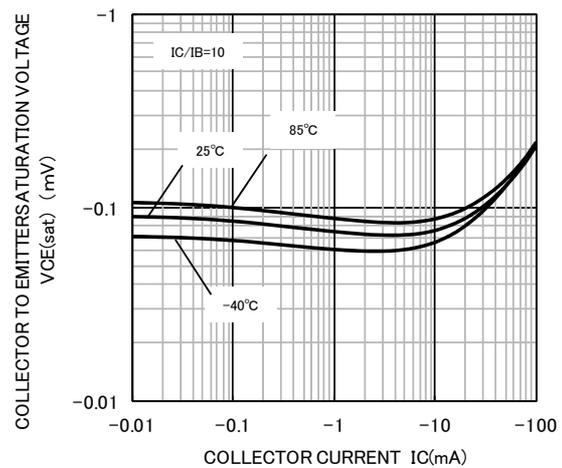
DC forward current gain VS. Collector current



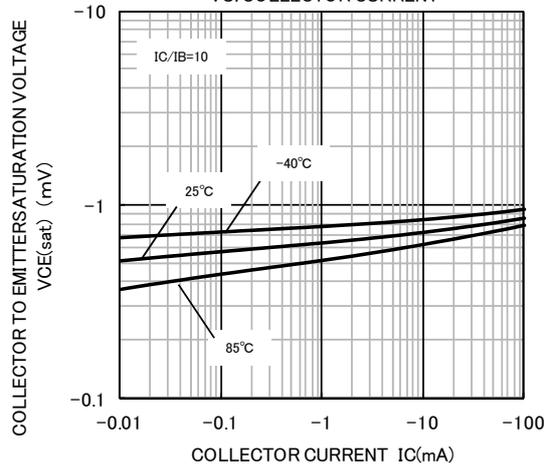
COMMON EMITTER TRANSFER



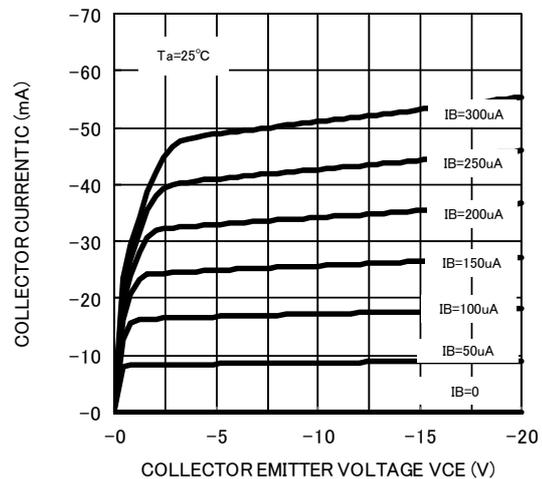
COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



BASE TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



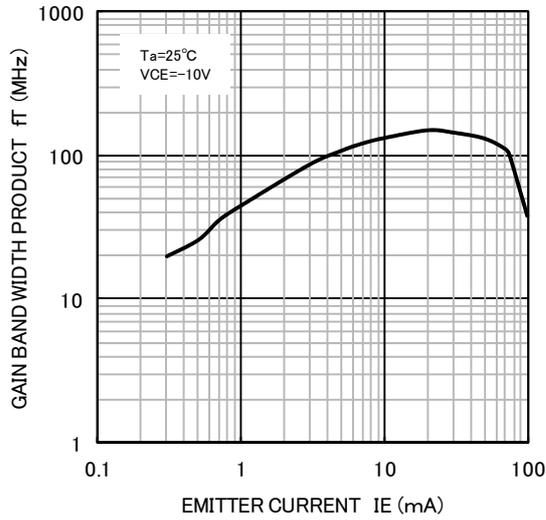
COMMON EMITTER OUTPUT



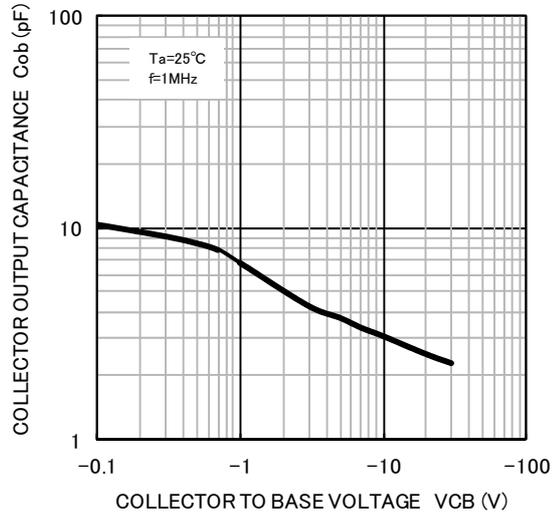
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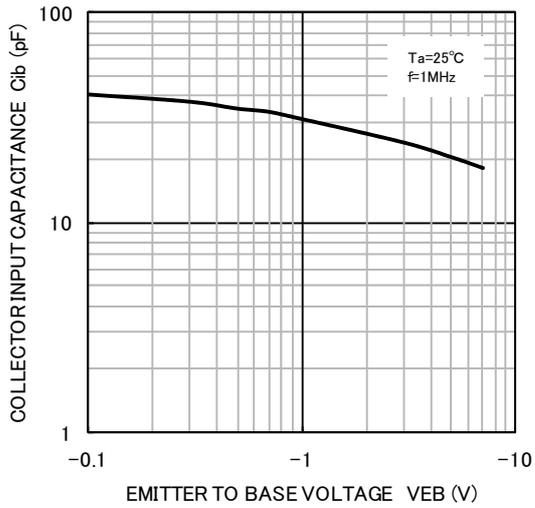
GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



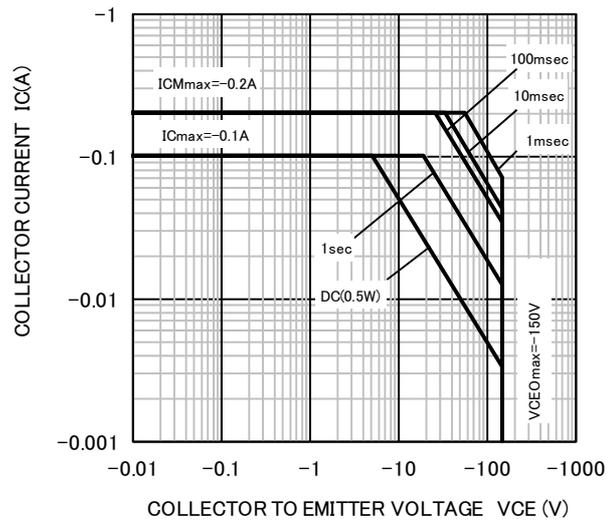
COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE



COLLECTOR INPUT CAPACITANCE
VS. BASE TO EMITTER VOLTAGE



Ta=25°C
single pulse ASO





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