

INC6006AS1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

INC6006AS1 is a silicon NPN transistor.

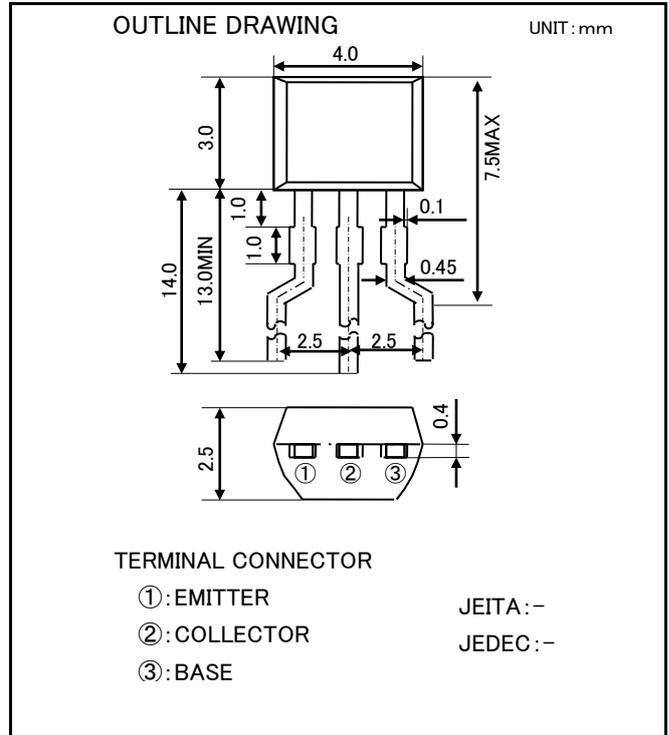
It is designed with high voltage.

FEATURE

- High voltage $V_{CEO} = 160V$
- Low voltage $V_{CE(sat)} = 0.2V(MAX)$
- Small capacitance $C_{ob}=1.7pF(TYP)$
- Complementary : INA6006AS1

APPLICATION

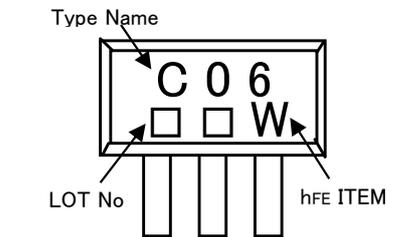
Hi-Fi Audio, High voltage switching.



MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	180	V
V_{EBO}	Emitter to Base voltage	6	V
V_{CEO}	Collector to Emitter voltage	160	V
I_{CM}	Peak collector current	200	mA
I_C	Collector current	100	mA
P_C	Collector dissipation(Ta=25°C)	600	mW
T_j	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55~+150	°C

MARKING



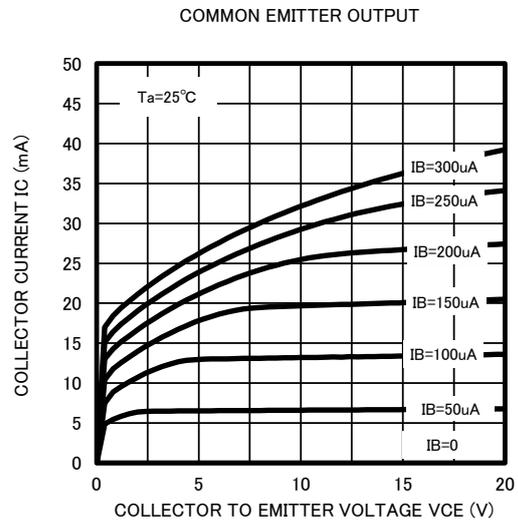
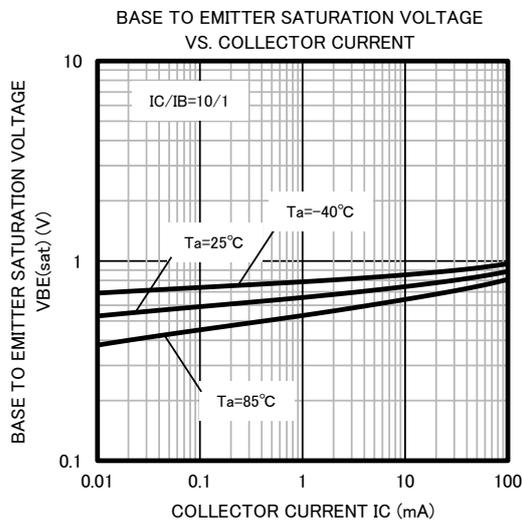
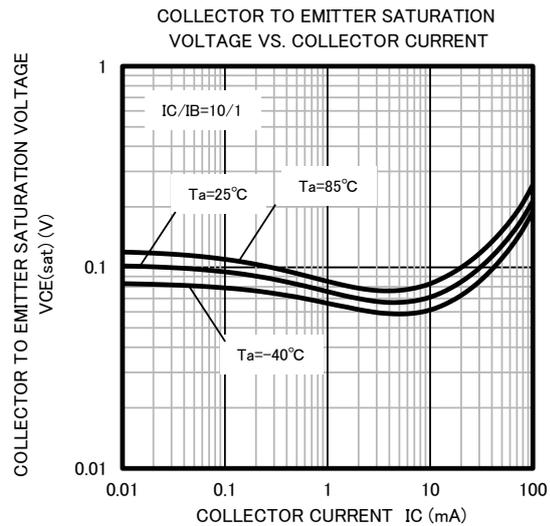
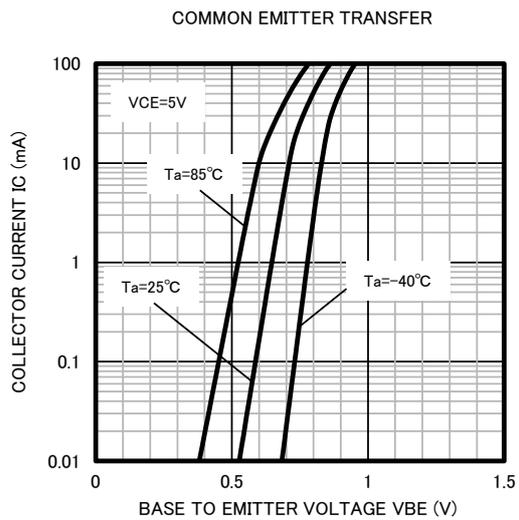
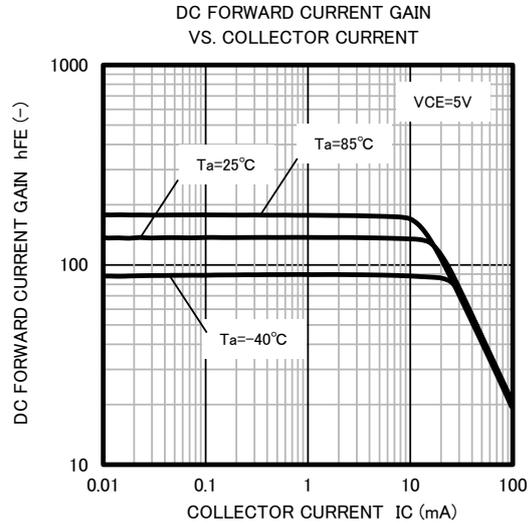
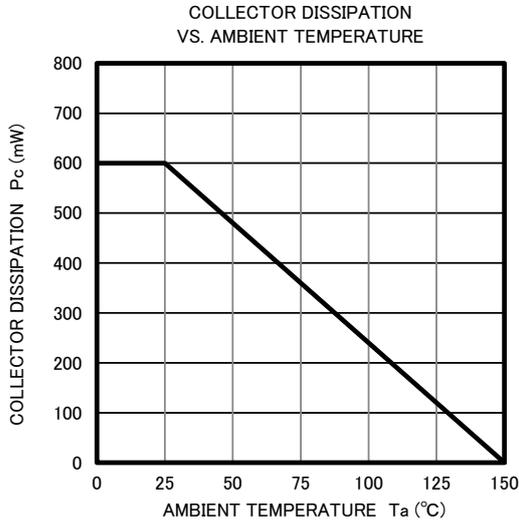
ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=100 \mu A, I_E=0A$	180	-	-	V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10 \mu A, I_C=0A$	6	-	-	V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=1mA, R_{BE}=\infty$	160	-	-	V
I_{CBO}	Collector cut off current	$V_{CB}=120V, I_E=0A$	-	-	100	nA
I_{EBO}	Emitter cut off current	$V_{EB}=4V, I_C=0A$	-	-	100	nA
h_{FE1}	DC forward current gain1	$V_{CE}=5V, I_C=1mA$	72	-	-	-
h_{FE2}	DC forward current gain2	$V_{CE}=5V, I_C=10mA$	72	-	330	-
h_{FE3}	DC forward current gain3	$V_{CE}=5V, I_C=50mA$	27	-	-	-
$V_{CE(sat)1}$	C to E saturation voltage1	$I_C=10mA, I_B=1mA$	-	-	0.15	V
$V_{CE(sat)2}$	C to E saturation voltage2	$I_C=50mA, I_B=5mA$	-	-	0.2	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
f_T	Gain bandwidth product	$V_{CE}=10V, I_E=-10mA$	100	-	300	MHz
Cob	Collector output capacitance	$V_{CB}=10V, I_E=0A, f=1MHz$	-	1.7	6	pF
Cib	Emitter input capacitance	$V_{EB}=0.5V, I_C=0A, f=1MHz$	-	-	20	pF

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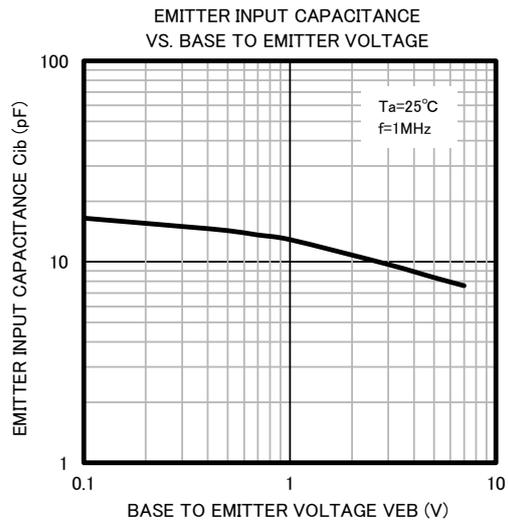
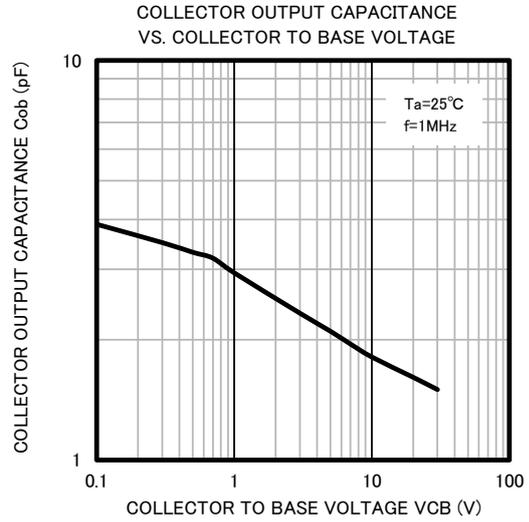
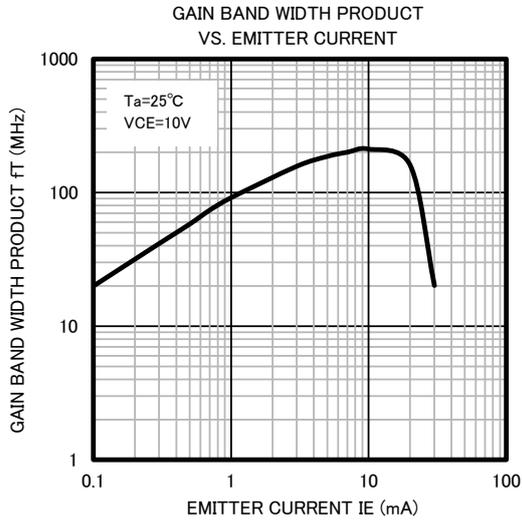
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TYPICAL CHARACTERISTICS



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