

PRELIMINARY

Notice: This is not a final specification
Some parametric are subject to change.

INC5006AC1

FOR HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

INC5006AC1 is a silicon NPN epitaxial type transistor.
It is designed with high collector current and small $V_{CE(sat)}$.

FEATURE

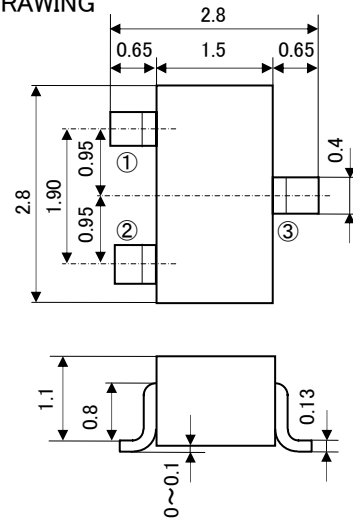
- Super mini package for easy mounting
- High collector current ($I_C=3A$)
- Low collector saturation voltage
($V_{CE(sat)} < 0.2V_{max}; I_C=1A, I_B=20mA$)

APPLICATION

Switching, Small type motor drive

OUTLINE DRAWING

UNIT: mm



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

①: Base
②: Emitter
③: Collector

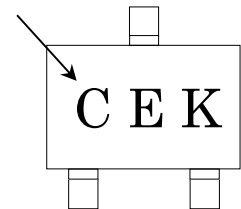
MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING	UNIT
V_{CEO}	Collector to Emitter voltage	50	V
V_{CBO}	Collector to Base voltage	100	V
V_{EBO}	Emitter to Base voltage	7	V
I_C	Collector current	3	A
P_C	Collector dissipation (Ta=25°C)	200	mW
		900(*)	
T_j	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55 ~ +150	°C

*Mounted on ceramic board (19mm × 9mm × 1mm)

MARKING

Type Name



ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E break down voltage	$I_C=10mA, I_B=0mA$	50	-	-	V
$V_{(BR)CBO}$	C to B break down voltage	$I_C=100\mu A, I_E=0mA$	100	-	-	V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=100\mu A, I_C=0mA$	7	-	-	V
I_{CBO}	Collector cut off current	$V_{CB}=100V, I_E=0mA$	-	-	0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB}=7V, I_C=0mA$	-	-	0.1	μA
h_{FE1}	DC forward current gain1	$V_{CE}=2V, I_C=300mA$	400	-	1000	-
h_{FE2}	DC forward current gain2	$V_{CE}=2V, I_C=1A$	200	-	-	-
$V_{CE(sat)}$	C to E saturation voltage	$I_C=1A, I_B=20mA$	-	-	0.2	V
$V_{BE(sat)}$	B to E saturation voltage	$I_C=1A, I_B=20mA$	-	-	1.1	V
f_T	Gain bandwidth product	$V_{CE}=10V, I_E=-300mA, f=100MHz$	-	250	-	MHz
Cob	Collector output capacitance	$V_{CB}=10V, f=1MHz$	-	13	-	pF

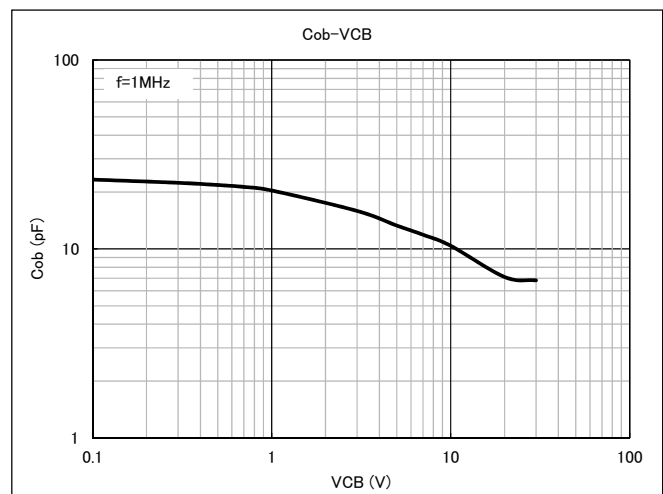
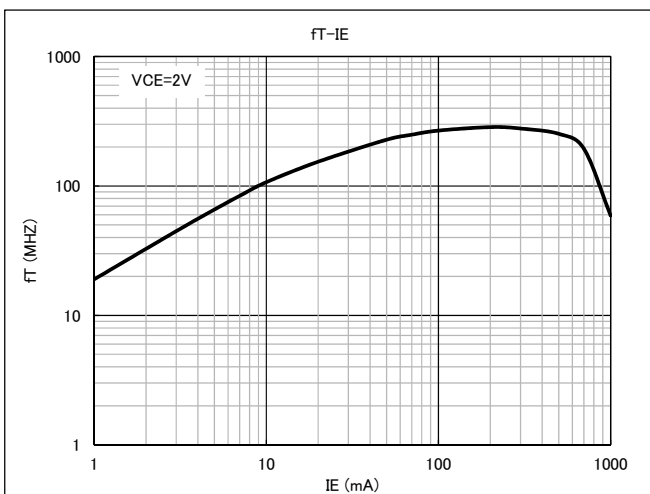
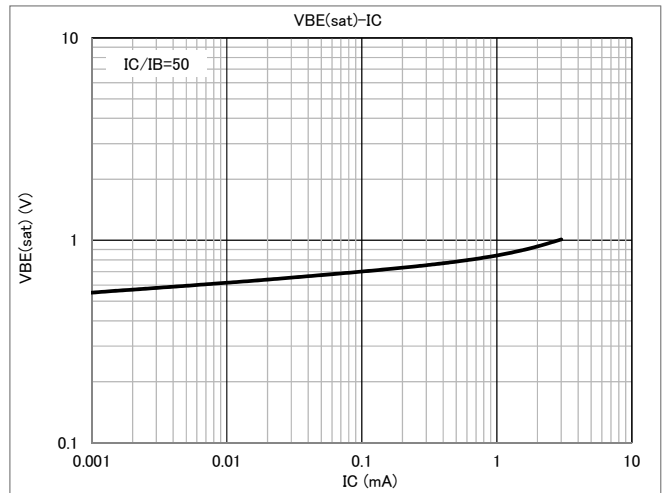
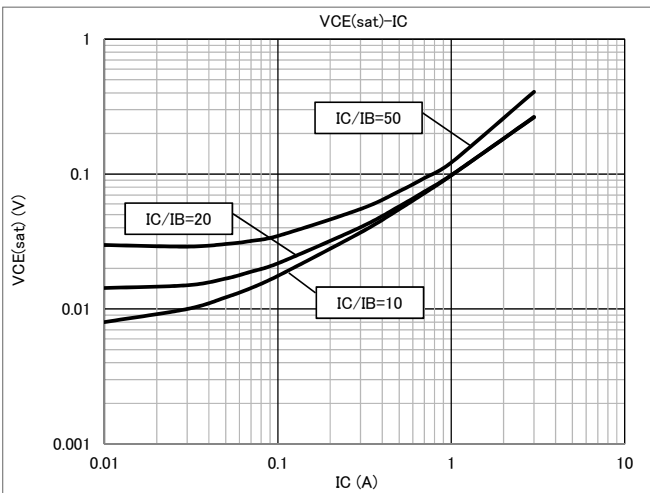
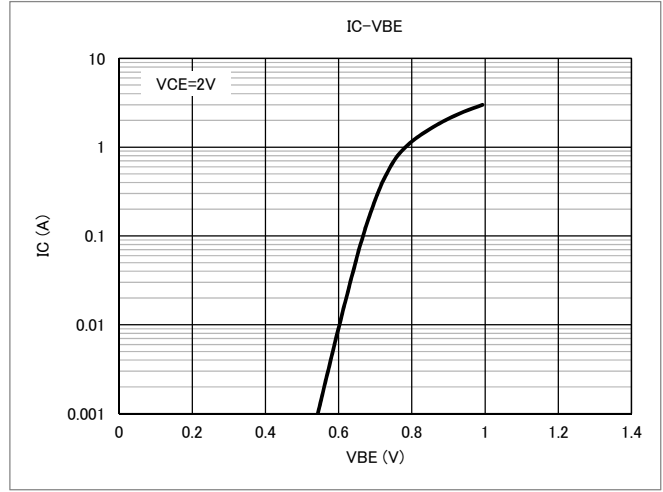
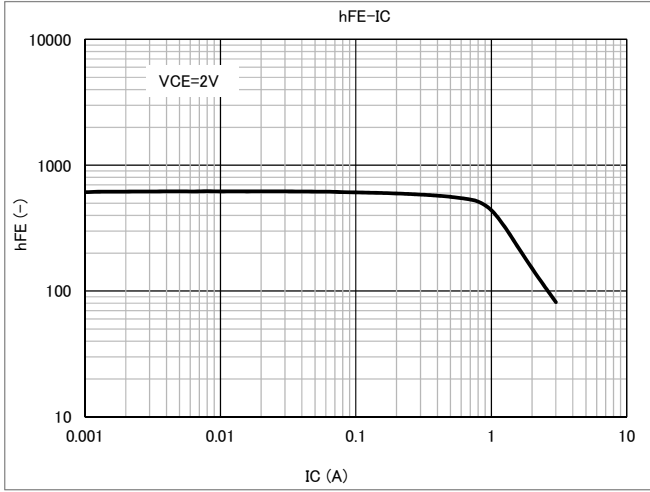
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TYPICAL CHARACTERISTICS (Ta=25°C)

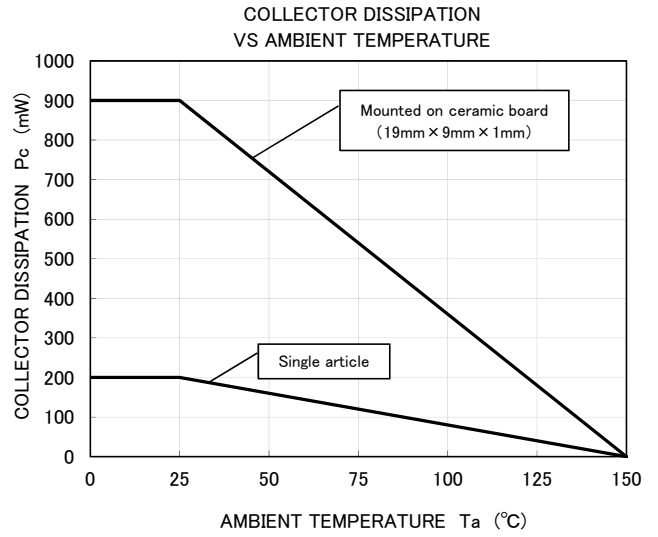
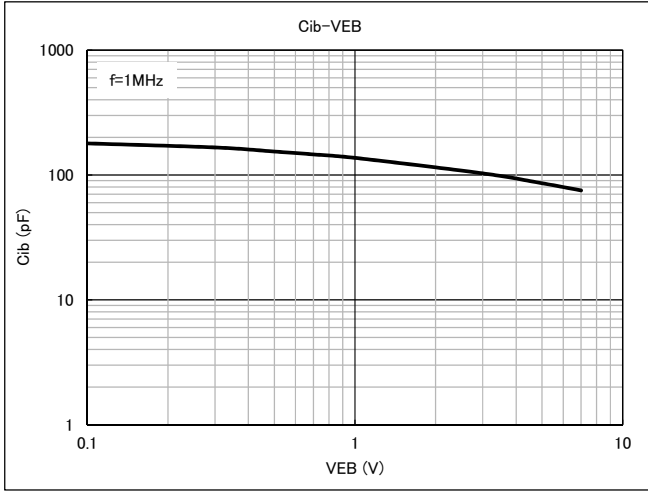


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