

INA5003AH1

SILICON PNP EPITAXIAL TYPE

PRELIMINARY

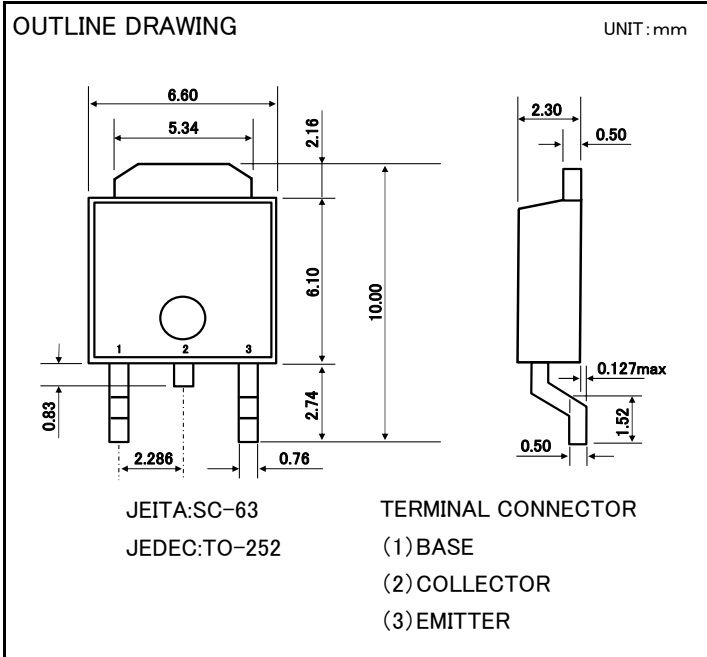
Notice: This is not a final specification
Some parametric are subject to change.

FEATURE

- Linearity of hFE is good
- Low voltage $V_{CE(sat)} = -240\text{mV(MAX)}$, $I_c = -2\text{A}$
- Complementary INC5003AH1

APPLICATION

Motor drive, IGBT drive, DC/DC convertor



MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITIONS	RATING	UNIT
V_{CBO}	Collector to Base voltage	-	-100	V
V_{CEO}	Collector to Emitter voltage	-	-60	V
V_{EBO}	Emitter to Base voltage	-	-6	V
I_C	Collector current	DC	-5	A
I_{CP}	Collector current	Pulse(PW=<300us, Duty cycle=<10%)	-10	A
P_C	Collector dissipation	Ta=25°C	1	W
		Tc=25°C	10	W
T_j	Junction temperature	-	+150	°C
T_{stg}	Storage temperature	-	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

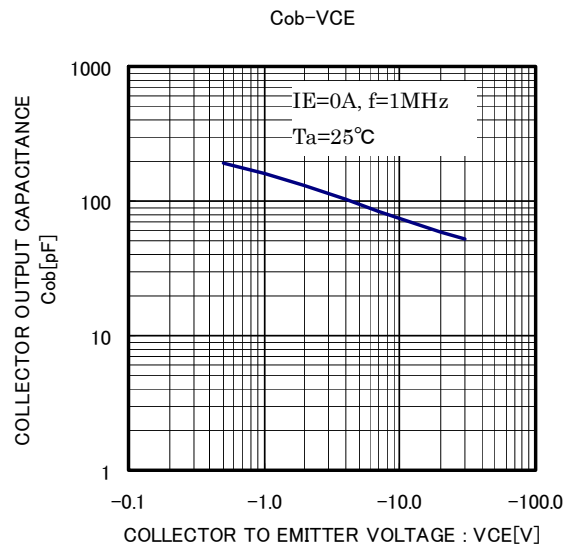
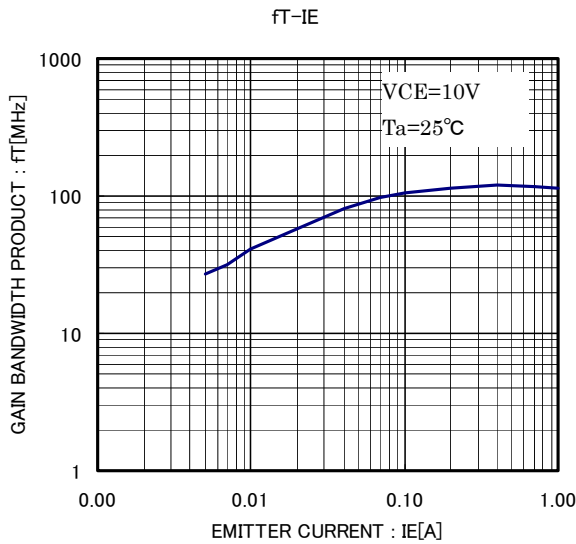
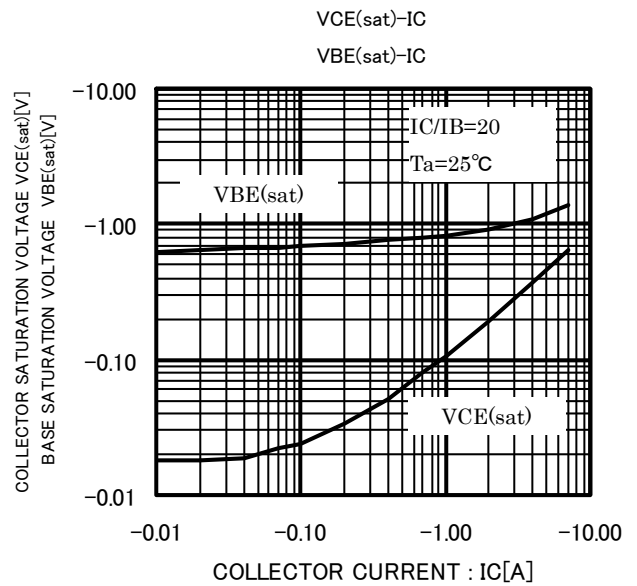
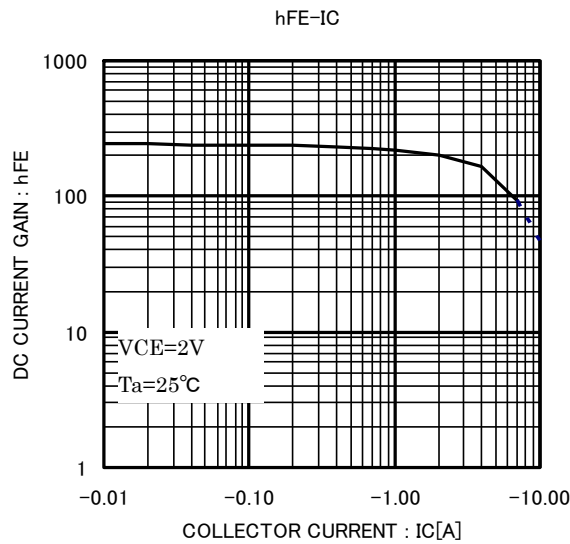
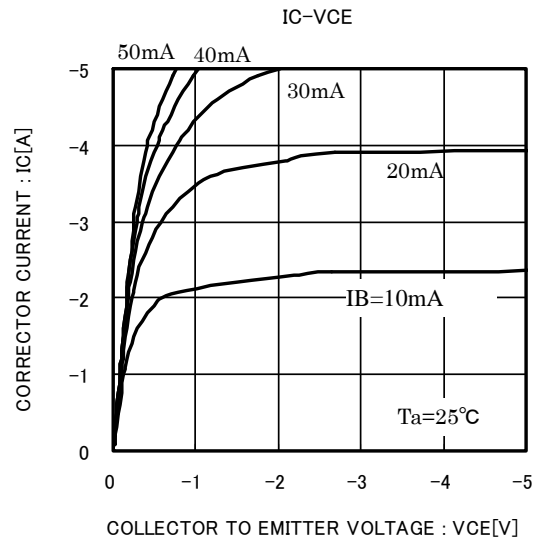
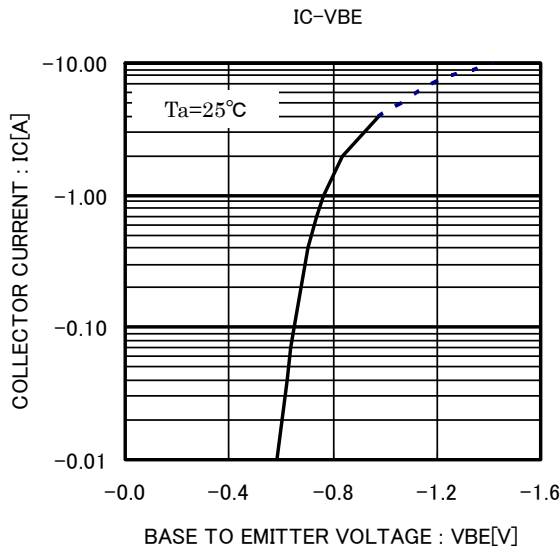
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B break down voltage	$I_C = -100 \mu A$	-100	-	-	V
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -10\text{mA}$	-60	-	-	V
$V_{(BR)EBO}$	E to B break down voltage	$I_E = -100 \mu A$	-6	-	-	V
I_{CBO}	Collector cut off current	$V_{CB} = -80\text{V}$	-	-	-1	μA
I_{EBO}	Emitter cut off current	$V_{EB} = -6\text{V}$	-	-	-1	μA
hFE	DC forward current gain	$V_{CE} = -1\text{V}, I_C = -2\text{A}$	120	200	300	-
hFE	DC forward current gain	$V_{CE} = -1\text{V}, I_C = -5\text{A}$	60	-	-	-
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -2\text{A}, I_B = -200\text{mA}$	-	-170	-240	mV
		$I_C = -5\text{A}, I_B = -500\text{mA}$	-	-380	-510	mV
$V_{BE(sat)}$	B to E saturation voltage	$I_C = -5\text{A}, I_B = -500\text{mA}$	-	-	-1.3	V
fT	Gain band width product	$V_{CE} = -10\text{V}, I_E = 100\text{mA}$	-	100	-	MHz
Cob	Collector output capacitance	$V_{CB} = -10\text{V}, I_E = 0\text{A}, f = 1\text{MHz}$	-	70	-	pF
ton	Turn on time	$I_C = -3\text{A}, I_B = -I_B = 0.15\text{A}$	-	-	0.3	μs
tstg	Storage time	$V_{CC} = -30\text{V}, R_L = 10\text{ohm}$	-	-	1.5	μs
tf	Fall time	$V_{BB} = 7.5\text{V}$	-	-	0.3	μs

PRELIMINARY

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TYPICAL CHARACTERISTICS





6-41 Tsukuba, Isahaya, Nagasaki, 854-0065 Japan

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