TENTATIVE

This is not a final specification.

Some parameters are subject to change.

〈SMALL-SIGNAL TRANSISTOR〉

INC6001AC1

FOR LOW FREQUENCY AMPLIFY APPLICATION

SILICON NPN EPITAXIAL TYPE (mini type)

DESCRIPTION

INC6001AC1 is a super mini package resin sealed silicon NPN epitaxial transistor,

It is designed for low frequency voltage application.

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FEATURE

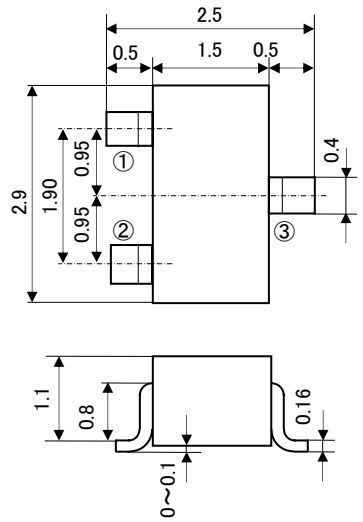
- Super mini package for easy mounting
- Small collector to emitter saturation voltage $V_{CE(sat)}$=0.5V
- High collector current I_C=1A
- High voltage V_{CEO}=100V

APPLICATION

For DC/DC converter , power supply etc.

OUTLINE DRAWING

Unit:mm



JEITA:SC-59

TERMINAL CONNECTER

①:BASE

②:EMITTER

③:COLLECTOR

MAXIMUM RATINGS(Ta=25℃)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	120	V
V_{EBO}	Emitter to Base voltage	6	V
V_{CEO}	Collector to Emitter voltage	100	V
I_C	Collector current	1	A
P_C	Collector dissipation	200	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

ELECTRICAL CHARACTERISTICS(Ta=25℃)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to B break down voltage	$V(BR)_{CBO}$	I_C=10μA , I_E=0	120	−	−	V
E to B break down voltage	$V(BR)_{EBO}$	I_E=10μA , I_C=0	6	−	−	V
C to E break down voltage	$V(BR)_{CEO}$	I_C=1mA ,R_{BE}=∞	100	−	−	V
Collector cut off current	I_{CBO}	V_{CB}=120V, I_E=0mA	−	−	500	nA
Emitter cut off current	I_{EBO}	V_{EB}=6V, I_C=0mA	−	−	500	nA
DC forward current gain	hFE	V_{CE}=2V, I_C=150mA	100	−	300	
C to E Saturation Voltage	$V_{CE(sat)}$	I_C=500mA ,I_B=50mA	−	−	0.5	V
Gain bandwidth product	fT	V_{CE}=10V, I_E=−50mA	−	270	−	MHz
Collector output capacitance	Cob	V_{CB}=10V, I_E=0mA,f=1MHz	−	5	−	pF

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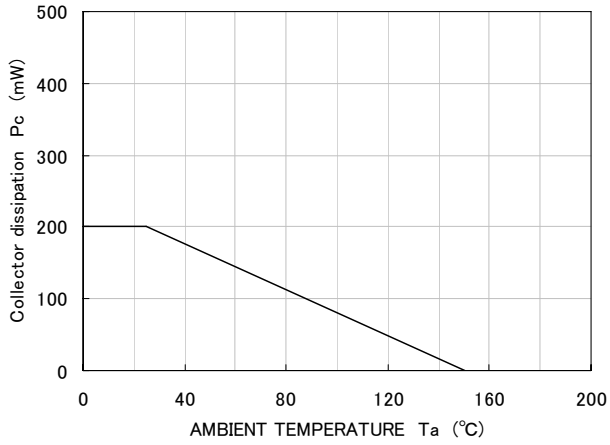
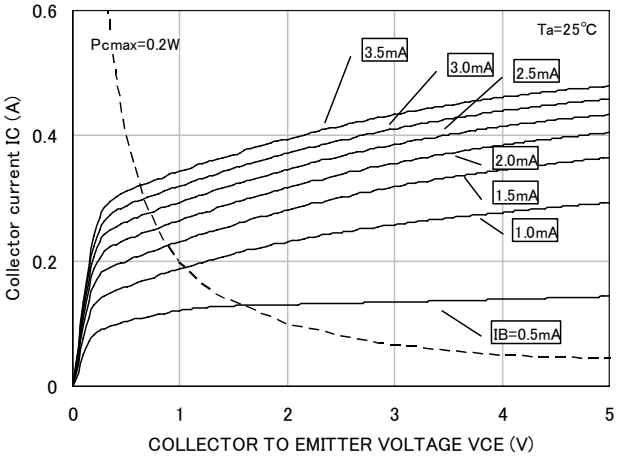
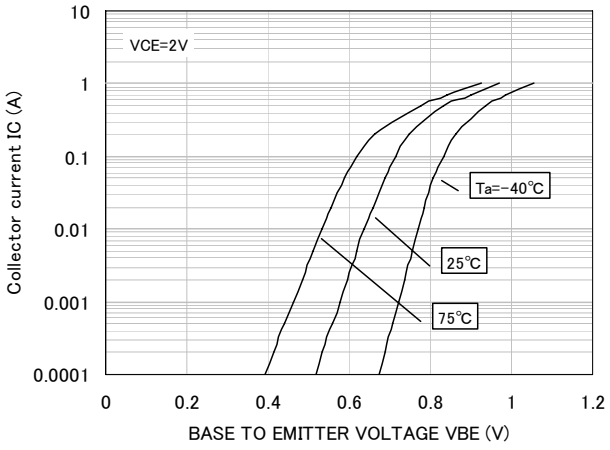
Collector dissipation-AMBIENT TEMPERATURE



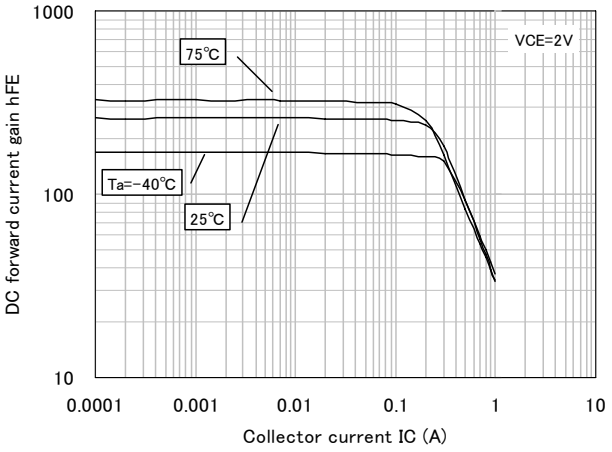
COMMON EMITTER OUTPUT



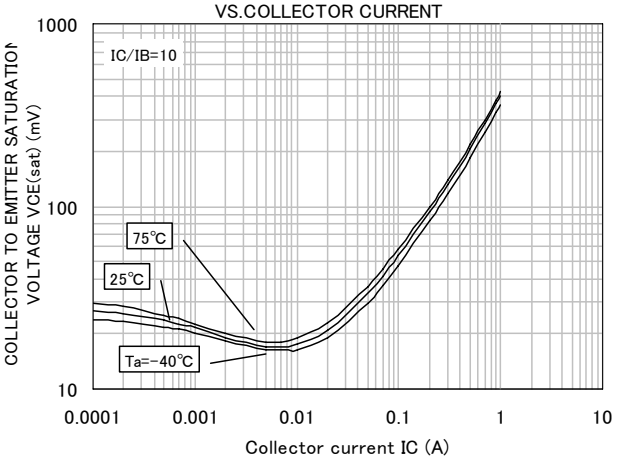
COMMON EMITTER TRANSFER



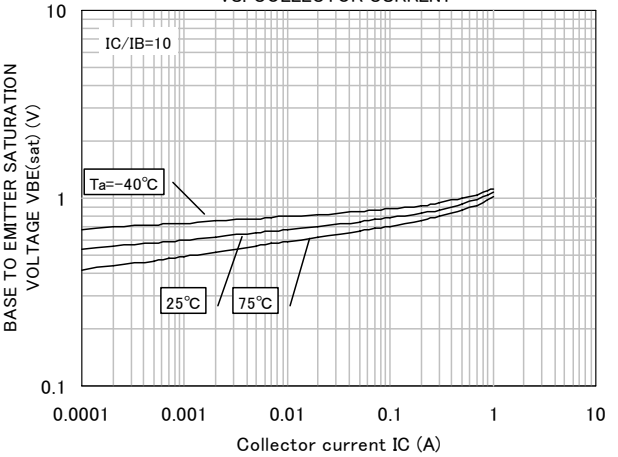
DC forward current gain VS. Collector current



COLLECTOR TO EMITTER SATURATION VOLTAGE VS.COLLECTOR CURRENT



BASE TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



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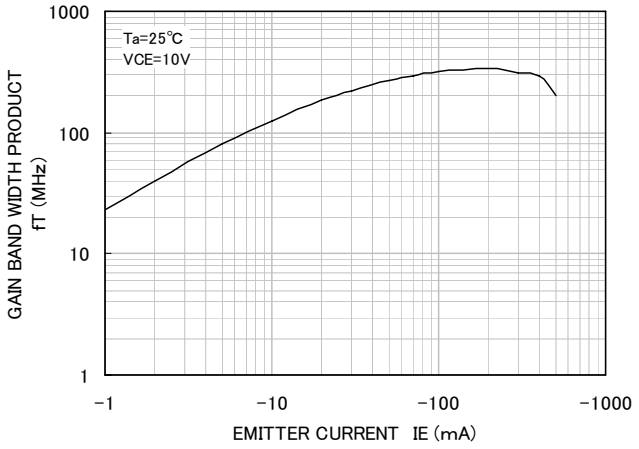
〈SMALL-SIGNAL TRANSISTOR〉

INC6001AC1

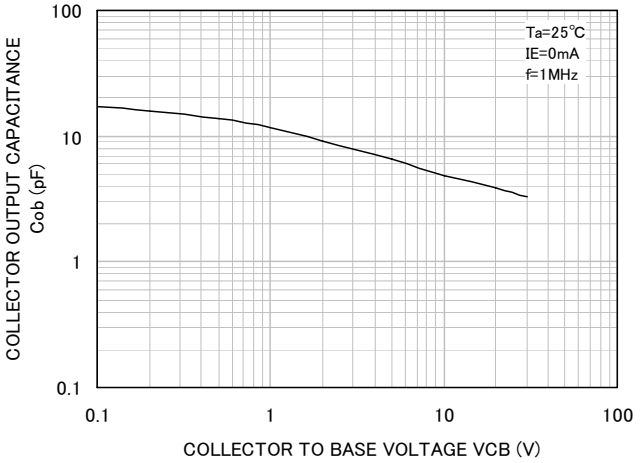
FOR LOW FREQUENCY AMPLIFY APPLICATION

SILICON NPN EPITAXIAL TYPE (mini type)

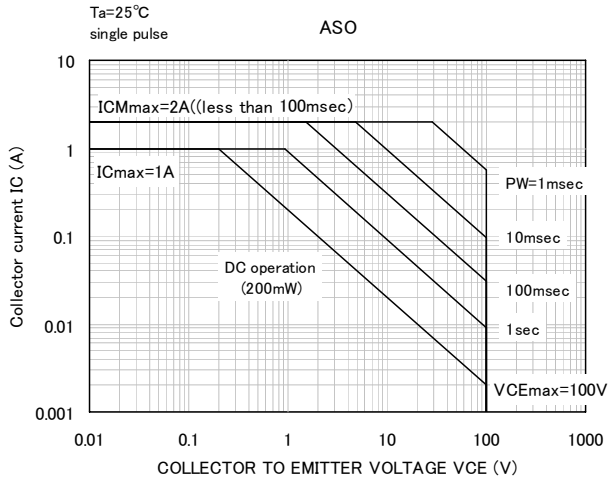
GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE



ASO



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Feb.2009