TENTATIVE

This is not a final specification.

Some parameters are subject to change.

〈SMALL-SIGNAL TRANSISTOR〉

INC5001AC1

FOR LOW FREQUENCY AMPLIFY APPLICATION

SILICON NPN EPITAXIAL TYPE (mini type)

DESCRIPTION

INC5001AC1 is a super mini package resin sealed silicon NPN epitaxial transistor,

It is designed for relay draive or Power supply application.

.

FEATURE

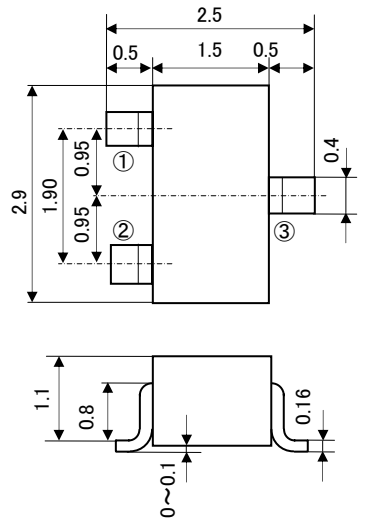
- ●Super mini package for easy mounting
- ●Low VCE(sat) $V_{CE(sat)}$=0.25V max(@I_C=500mA/I_B=50mA)
- ●High collector current I_C=1A
- ●High voltage V_{CEO}=60V

APPLICATION

Relay drive, Power supply for audio equipment, VTR , 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	80	V
V_{EBO}	Emitter to Base voltage	5	V
V_{CEO}	Collector to Emitter voltage	60	V
I_C	Collector current	1	A
I_{CM}	Peak collector current	2	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	80	−	−	V
E to B break down voltage	$V(BR)_{EBO}$	I_E=10μA , I_C=0	5	−	−	V
C to E break down voltage	$V(BR)_{CEO}$	I_C=1mA ,R_{BE}=∞	60	−	−	V
Collector cut off current	I_{CBO}	V_{CB}=80V, I_E=0mA	−	−	0.1	uA
Emitter cut off current	I_{EBO}	V_{EB}=5V, I_C=0mA	−	−	0.1	uA
DC forward current gain	hFE	V_{CE}=4V, I_C=0.1A	130	−	320	
C to E Saturation Voltage	$V_{CE(sat)}$	I_C=500mA ,I_B=50mA	−	−	0.25	V
Gain bandwidth product	fT	V_{CE}=10V, I_E=−50mA	−	240	−	MHz
Collector output capacitance	Cob	V_{CB}=10V, I_E=0mA,f=1MHz	−	−	10	pF

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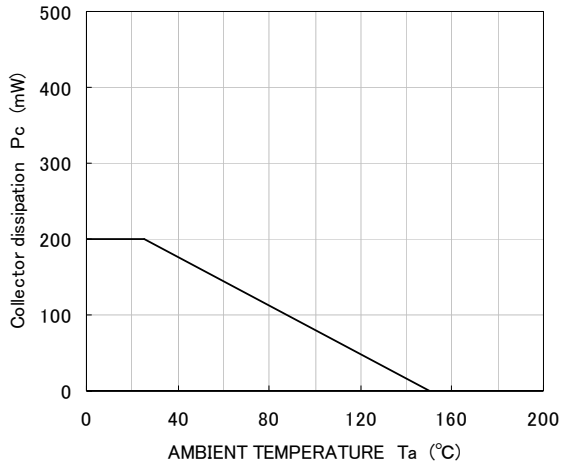
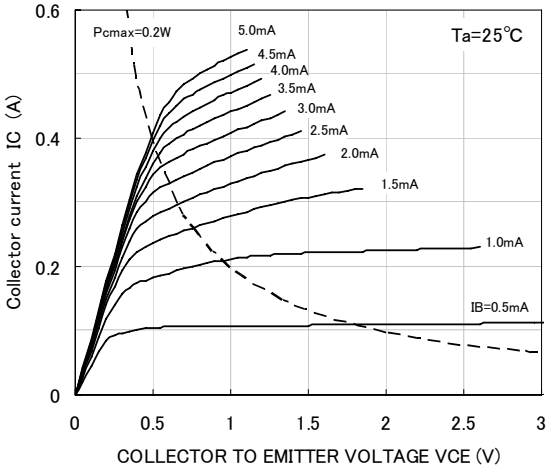
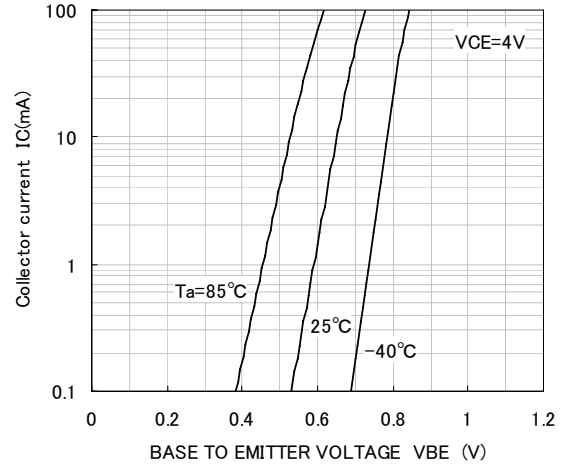
Collector dissipation–AMBIENT TEMPERATURE



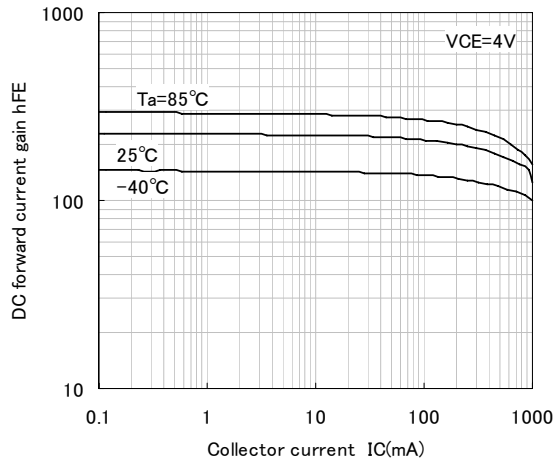
COMMON EMITTER OUTPUT



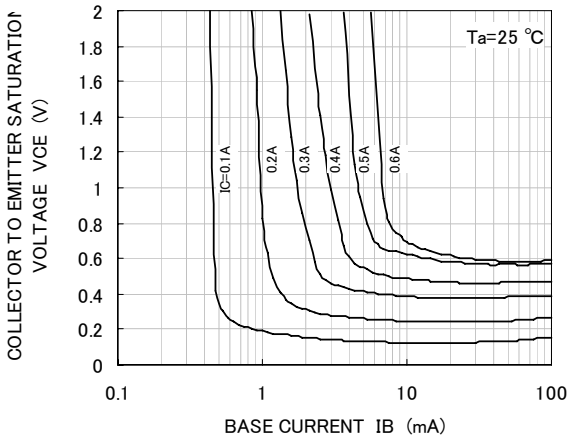
COMMON EMITTER TRANSFER



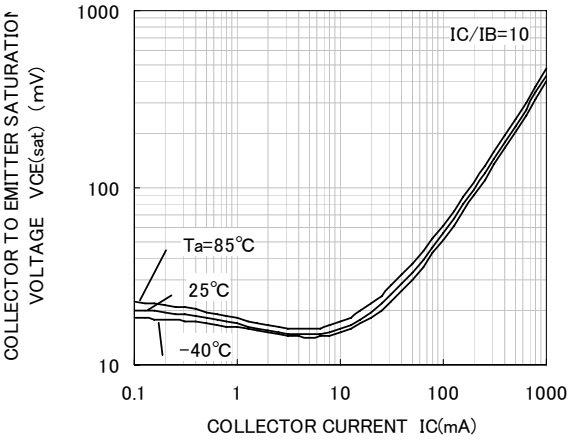
DC forward current gain VS. Collector current



COLLECTOR TO EMITTER SATURATION VOLTAGE
VS. BASE CURRENT



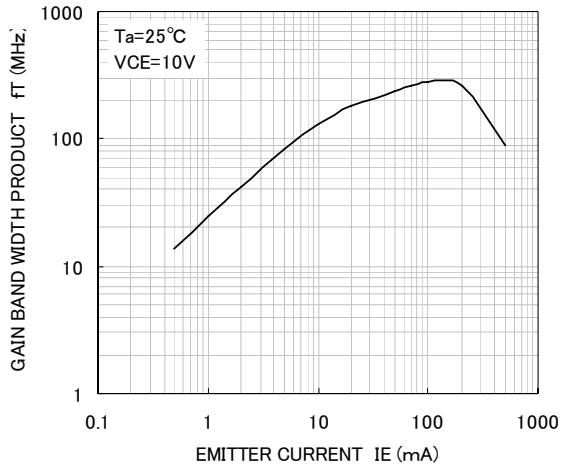
COLLECTOR TO EMITTER SATURATION VOLTAGE
VS. COLLECTOR CURRENT



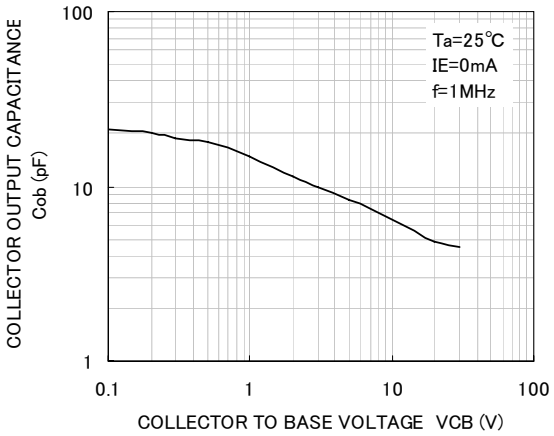
INC5001AC1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE (mini type)

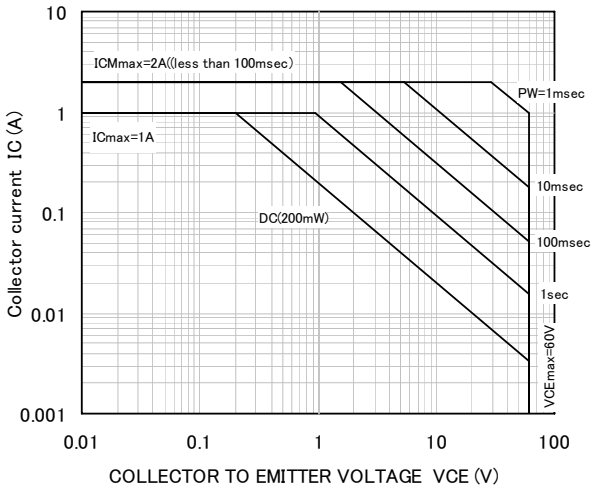
GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE



Ta=25℃
single pulse
ASO



ISAHAYA ELECTRONICS CORPORATION

Marketing division, Marketing planning department

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

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Feb.2009