INA1001AC1-TH50

FOR GENERAL PURPOSE HIGH CURRENT DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE

AEC-Q101 Compliance

DESCRIPTION

INA1001AC1 is a silicon PNP epitaxial type transistor.
It is designed with high collector current and small $V_{CE(sat)}$.

FEATURE

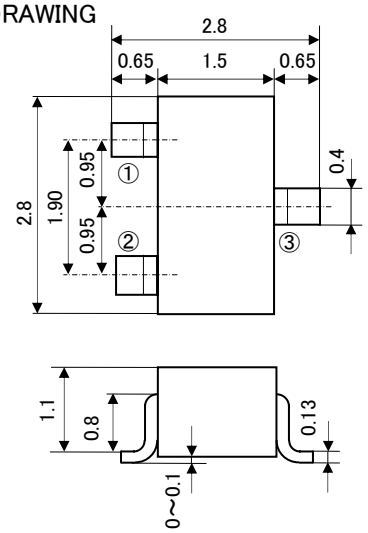
- Super mini package for easy mounting
- High collector current(I_C=−500mA)
- Low collector saturation voltage
  ($V_{CE(sat)}$<−0.3V_{max}; I_C=−100mA、I_B=−10mA)
- High voltage V_{CEO}=−80V

APPLICATION

Power supply, Relay drive

OUTLINE DRAWING

UNIT:mm



Terminal Connector
①:Base
②:Emitter
③:Collector

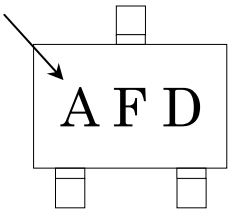
JEITA:SC-59
JEDEC: Similar to TO-236

MAXIMUM RATING(Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	−80	V
V_{EBO}	Emitter to Base voltage	−4	V
V_{CEO}	Collector to Emitter voltage	−80	V
I_C	Collector current	−500	mA
P_C	Collector dissipation(Ta=25℃)	200	mW
T_j	Junction temperature	＋150	℃
T_{stg}	Storage temperature	−55～＋150	℃

MARKING

Type Name

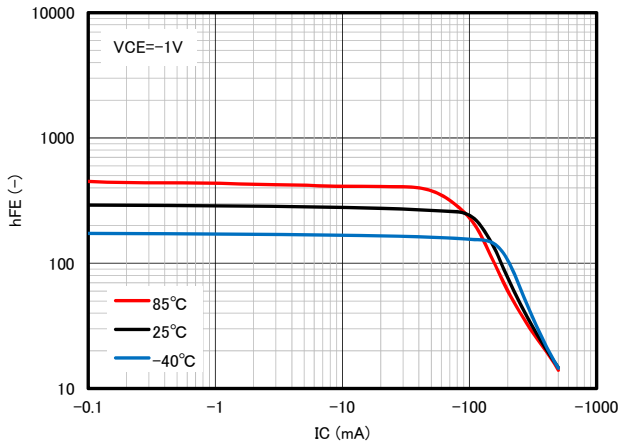


ELECTRICAL CHARACTERISTICS(Ta=25℃)

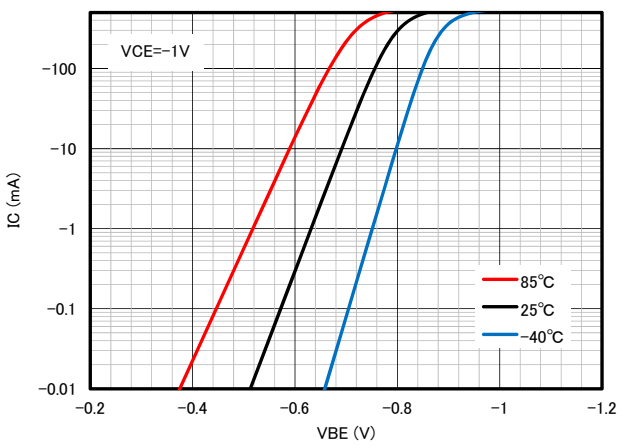
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B breakdown voltage	I_C=−100μA, I_E=0mA	−80	−	−	V
$V_{(BR)EBO}$	E to B breakdown voltage	I_E=−100μA, I_C=0mA	−4	−	−	V
$V_{(BR)CEO}$	C to E breakdown voltage	I_C=−1mA, I_B=0mA	−80	−	−	V
I_{CBO}	Collector cut off current	V_{CB}=−80V, I_E=0mA	−	−	−0.1	μA
I_{EBO}	Emitter cut off current	V_{EB}=−4V, I_C=0mA	−	−	−0.1	μA
h_{FE1}	DC forward current gain1	V_{CE}=−1V, I_C=−10mA	95	−	−	−
h_{FE2}	DC forward current gain2	V_{CE}=−1V, I_C=−100mA	95	−	−	−
$V_{CE(sat)}$	C to E saturation voltage	I_C=−100mA, I_B=−10mA	−	−	−0.3	V
f_T	Gain bandwidth product	V_{CE}=−1V, I_E=100mA, f=100MHz	50	−	−	MHz

TYPICAL CHARACTERISTICS

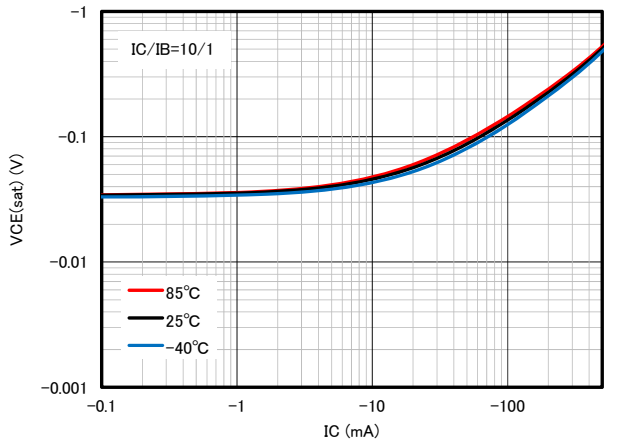
hFE-IC



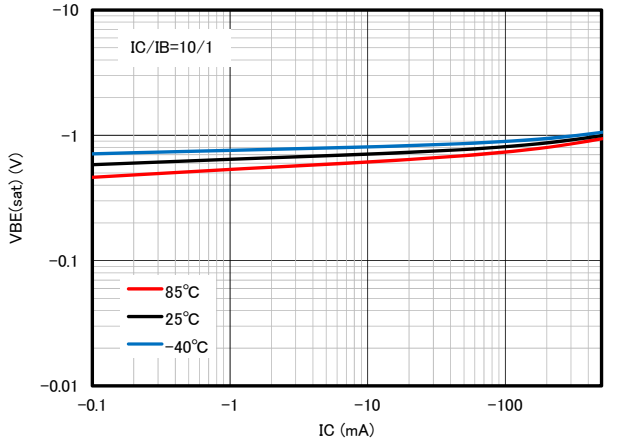
IC-VBE



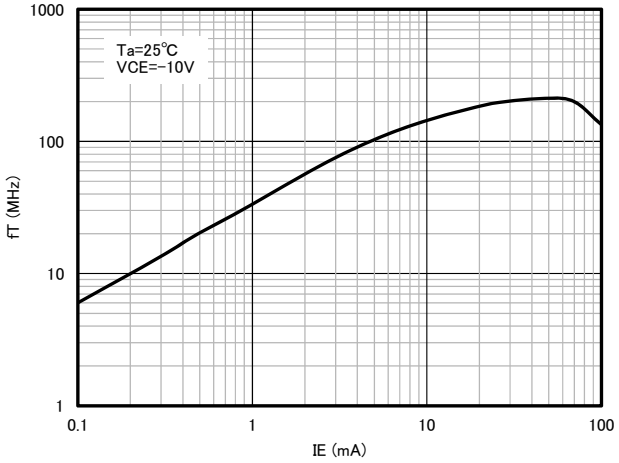
VCE(sat)-IC



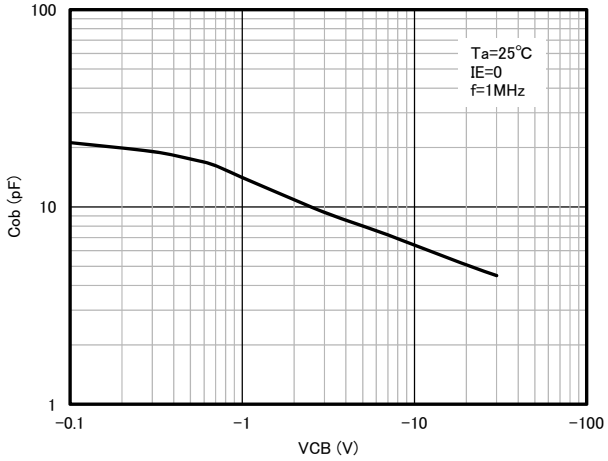
VBE(sat)-IC



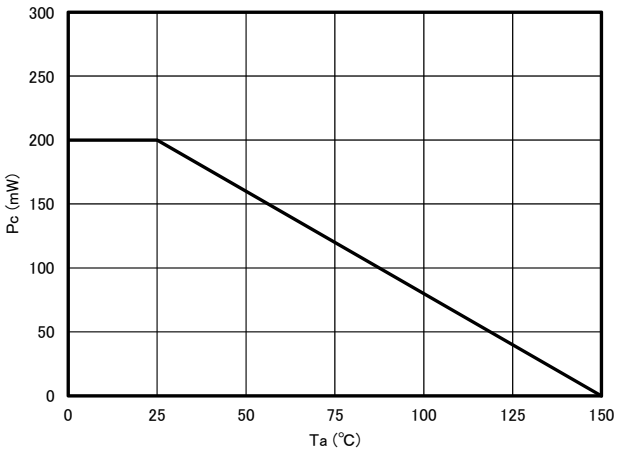
fT-IE



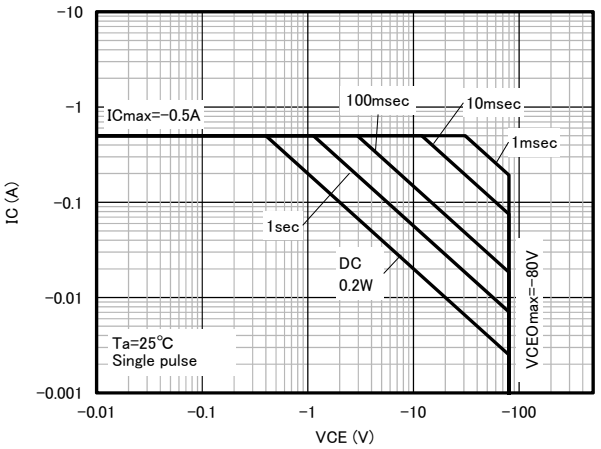
Cob-VCB



Pc–Ta


300
250
200
150
100
50
0
Pc (mW)
0
25
50
75
100
125
150
Ta (°C)

ASO


−10
−1
−0.1
−0.01
−0.001
IC (A)
ICmax=−0.5A
100msec
10msec
1msec
1sec
DC
0.2W
VCEOmax=−80V
Ta=25°C
Single pulse
−0.01
−0.1
−1
−10
−100
VCE (V)

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