INA6001AC1-TH50

FOR HIGH CURRENT DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE

AEC-Q101 Compliance

DESCRIPTION

INA6001AC1 is a silicon PNP epitaxial type transistor.
It is designed with high collector current and small $V_{CE(sat)}$.

FEATURE

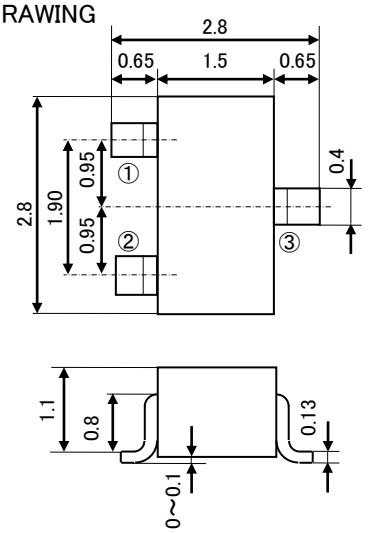
- Super mini package for easy mounting
- High collector current(I_C=−1A)
- Low collector saturation voltage
  ($V_{CE(sat)}$<−0.5V_{max} ; I_C=−500mA、I_B=−50mA)

APPLICATION

For switching, Small type motor drive

OUTLINE DRAWING

UNIT : mm



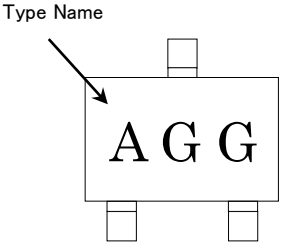
Terminal Connector
①: Base
②: Emitter
③: Collector

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

MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	−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(Ta=25℃)	200	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

MARKING

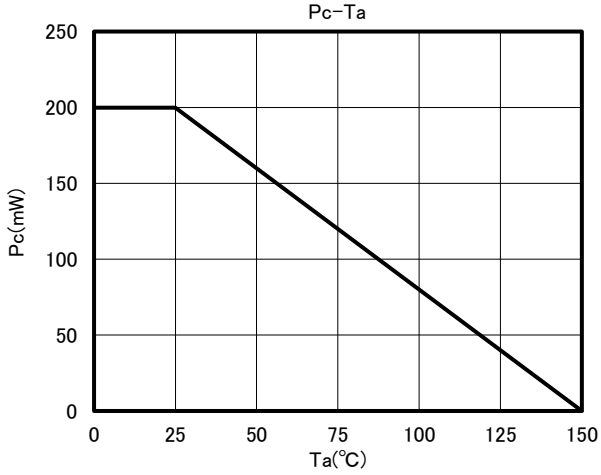


ELECTRICAL CHARACTERISTICS (Ta=25℃)

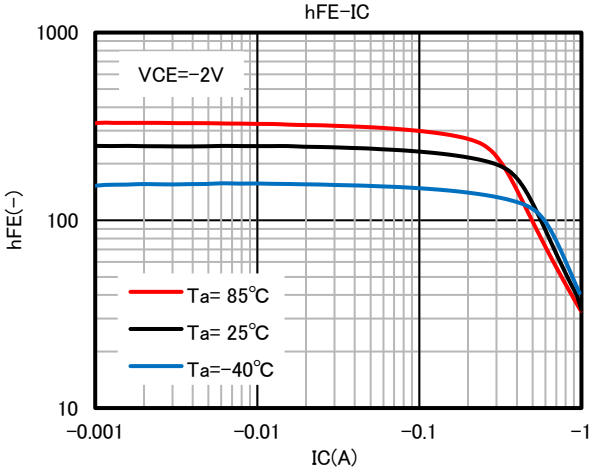
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B breakdown voltage	I_C=−100μA, I_E=0mA	−120	−	−	V
$V_{(BR)EBO}$	E to B breakdown voltage	I_E=−100μA, I_C=0mA	−6	−	−	V
$V_{(BR)CEO}$	C to E breakdown voltage	I_C=−1mA, I_B=0mA	−100	−	−	V
I_{CBO}	Collector cut off current	V_{CB}=−120V, I_E=0mA	−	−	−0.5	μA
I_{EBO}	Emitter cut off current	V_{EB}=−6V, I_C=0mA	−	−	−0.5	μA
h_{FE1}	DC forward current gain1	V_{CE}=−2V, I_C=−150mA	140	−	330	−
h_{FE2}	DC forward current gain2	V_{CE}=−5V, I_C=−1A	40	−	−	−
$V_{CE(sat)}$	C to E saturation voltage	I_C=−500mA, I_B=−50mA	−	−	−0.5	V
$V_{BE(sat)}$	B to E saturation voltage	I_C=−500mA, I_B=−50mA	−	−	−1.1	V
f_T	Gain bandwidth product	V_{CE}=−5V, I_E=50mA, f=100MHz	100	−	−	MHz
Cob	Collector output capacitance	V_{CB}=−10V, f=1MHz	−	−	10	pF

TYPICAL CHARACTERISTICS

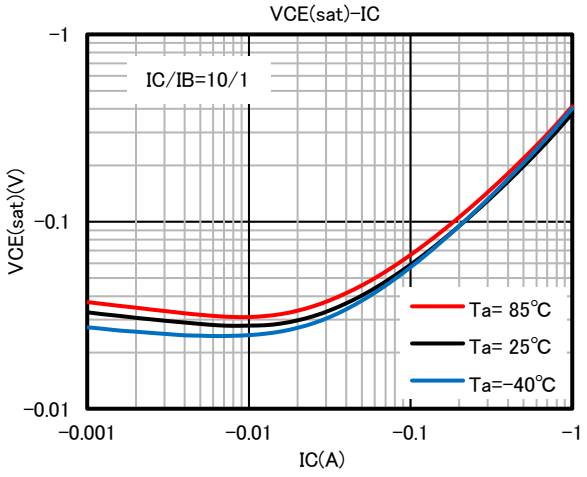
Pc-Ta



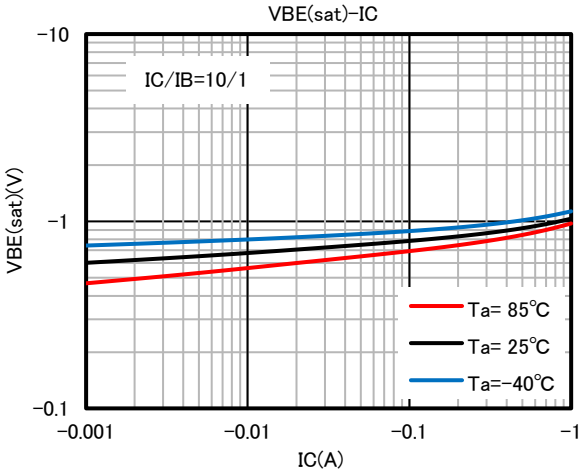
hFE-IC



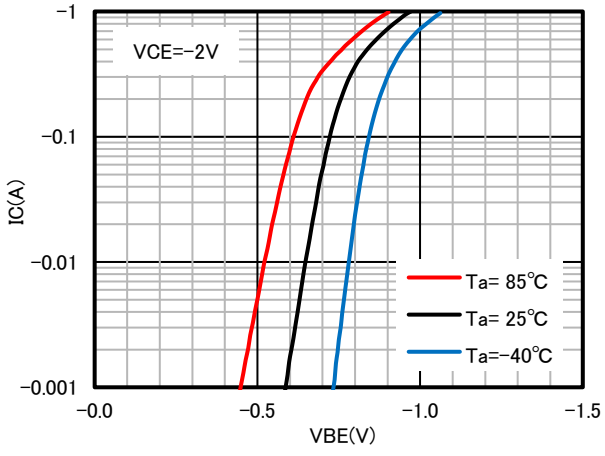
VCE(sat)-IC



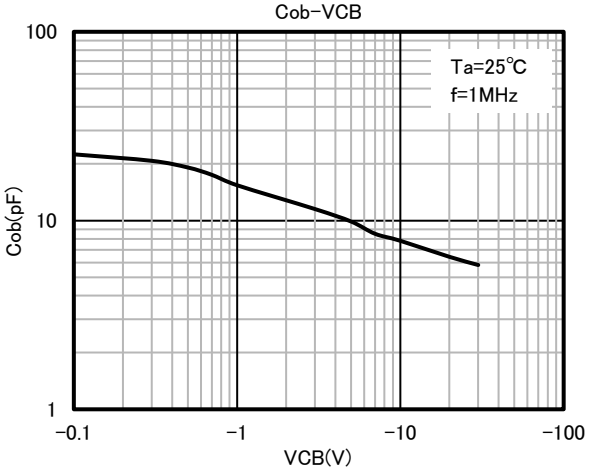
VBE(sat)-IC

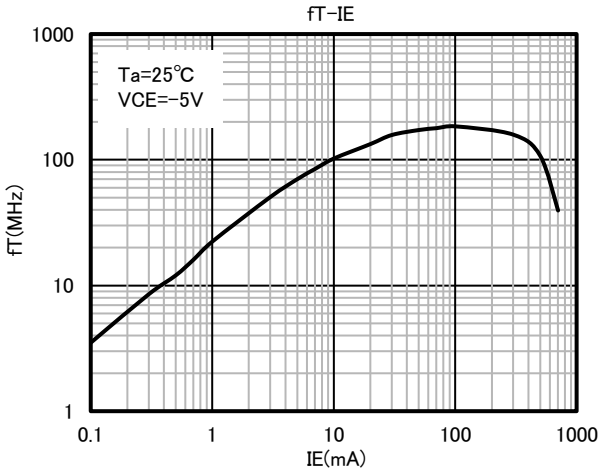


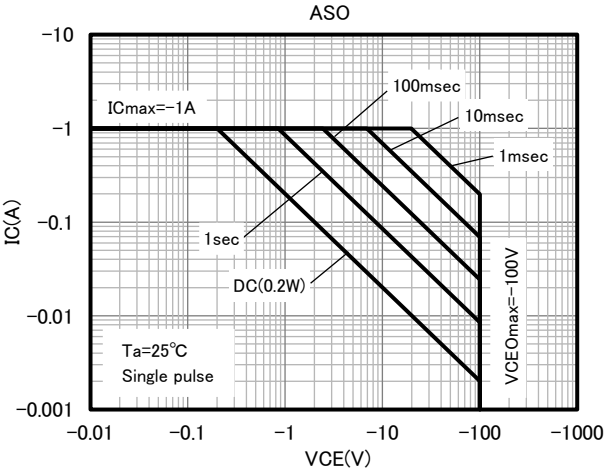
IC-VBE



Cob-VCB




fT-IE
Ta=25℃
VCE=-5V
fT(MHz)
IE(mA)
1000
100
10
1
0.1
1
10
100
1000


ASO
ICmax=-1A
100msec
10msec
1msec
1sec
DC(0.2W)
VCEOmax=-100V
Ta=25℃
Single pulse
IC(A)
VCE(V)
-10
-1
-0.1
-0.01
-0.001
-0.01
-0.1
-1
-10
-100
-1000

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