

INC1001AC1

FOR GENERAL PURPOSE HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

INC1001AC1 is a silicon NPN epitaxial type transistor.
It is designed with high collector current and small $V_{CE(sat)}$.

FEATURE

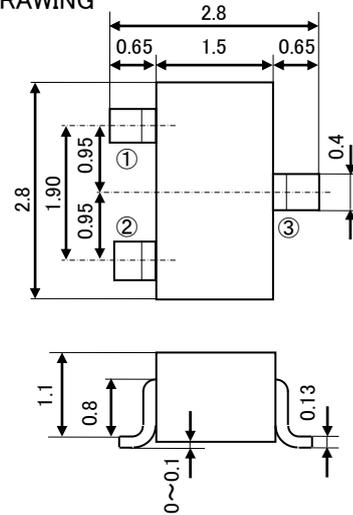
- Super mini package for easy mounting
- High collector current ($I_C=500\text{mA}$)
- Low collector saturation voltage
($V_{CE(sat)} < 0.3V_{max}$; $I_C=100\text{mA}$, $I_B=10\text{mA}$)

APPLICATION

For switching, Small type motor drive

OUTLINE DRAWING

UNIT: mm



Terminal Connector

JEITA: SC-59

①: Base

JEDEC: Similar to TO-236

②: Emitter

③: Collector

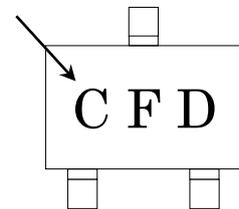
MAXIMUM RATING ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	80	V
V_{EBO}	Emitter to Base voltage	7	V
V_{CEO}	Collector to Emitter voltage	80	V
I_C	Collector current	0.5	A
P_C	Collector dissipation ($T_a=25^\circ\text{C}$)	200	mW
		500(*)	
T_j	Junction temperature	+150	$^\circ\text{C}$
T_{stg}	Storage temperature	-55 ~ +150	$^\circ\text{C}$

*Mounted on glass epoxy board (46mm × 19mm × 1mm)

MARKING

Type Name



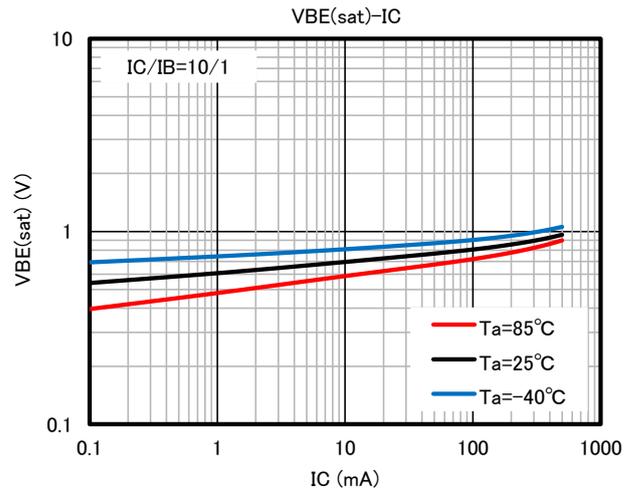
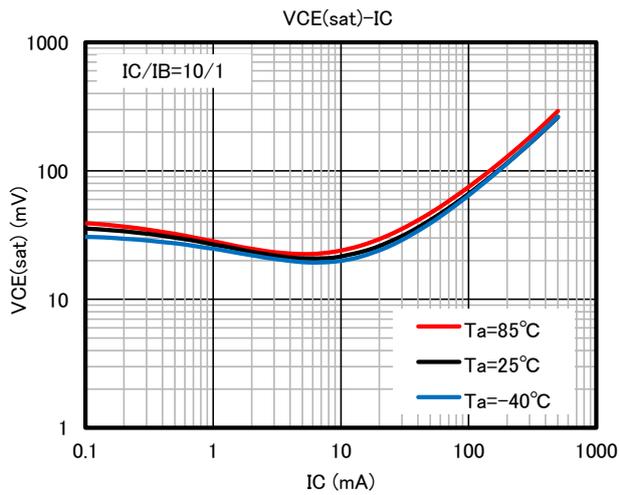
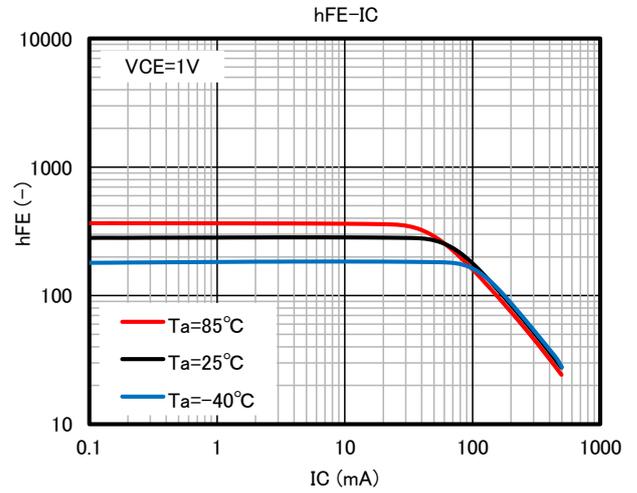
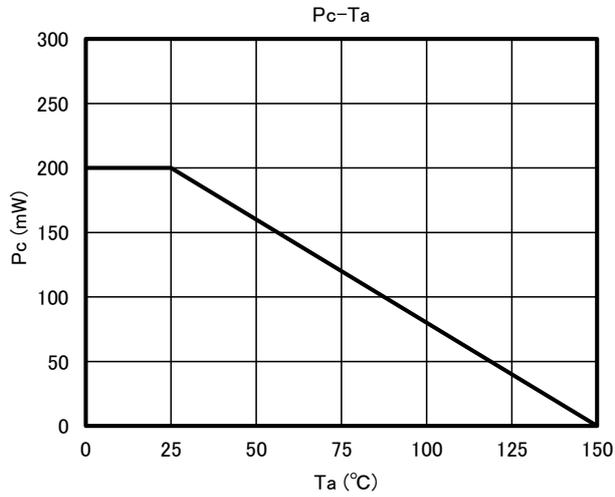
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B breakdown voltage	$I_C=100\mu\text{A}$, $I_E=0$	80	-	-	V
$V_{(BR)EBO}$	E to B breakdown voltage	$I_E=100\mu\text{A}$, $I_C=0$	7	-	-	V
$V_{(BR)CEO}$	C to E breakdown voltage	$I_C=1\text{mA}$, $I_B=0$	80	-	-	V
I_{CBO}	Collector cut off current	$V_{CB}=80\text{V}$, $I_E=0$	-	-	0.15	μA
I_{EBO}	Emitter cut off current	$V_{EB}=7\text{V}$, $I_C=0$	-	-	0.15	μA
h_{FE1}	DC forward current gain1	$V_{CE}=1\text{V}$, $I_C=10\text{mA}$	105	-	-	-
h_{FE2}	DC forward current gain2	$V_{CE}=1\text{V}$, $I_C=100\text{mA}$	95	-	-	-
$V_{CE(sat)}$	C to E saturation voltage	$I_C=100\text{mA}$, $I_B=10\text{mA}$	-	-	0.3	V
fT	Gain bandwidth product	$V_{CE}=2\text{V}$, $I_E=-10\text{mA}$, $f=100\text{MHz}$	100	-	-	MHz

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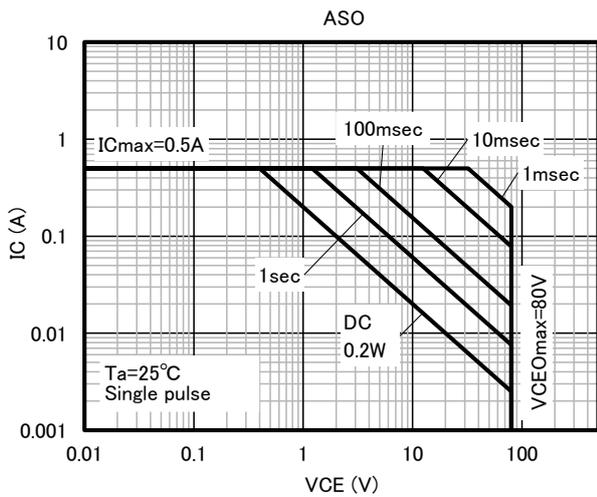
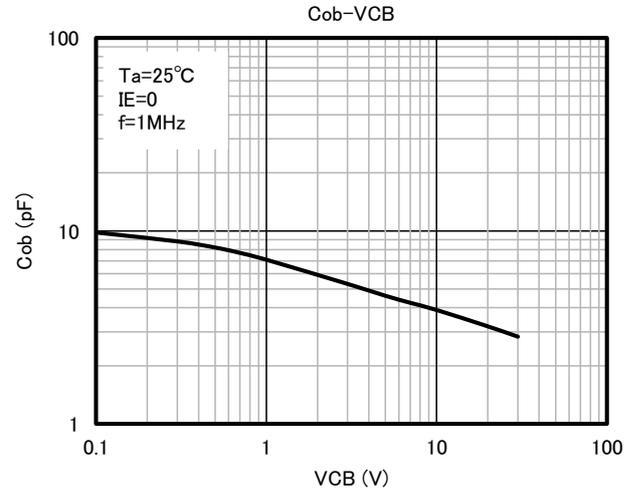
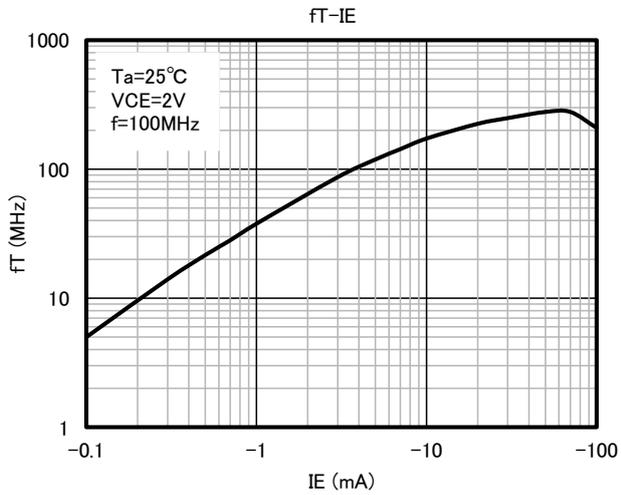
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TYPICAL CHARACTERISTICS



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