

# INC6001AP1-TH51

FOR LOW FREQUENCY AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

AEC-Q101 Compliance

## DESCRIPTION

INC6001AP1 is a silicon NPN transistor.

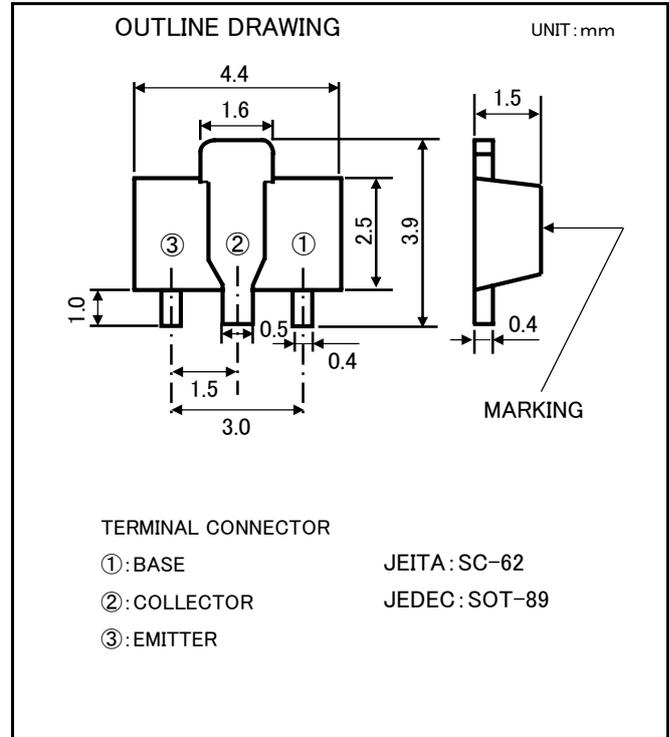
It is designed with high voltage.

## FEATURE

- Small package for easy mounting.
- High voltage  $V_{CEO}=100V$
- High collector current  $I_C=1A$
- Low saturation voltage  $V_{CE(sat)} = 0.5V(MAX)$

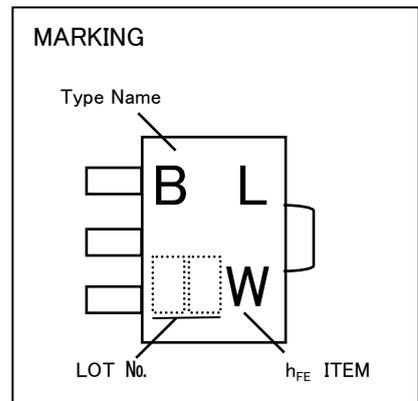
## APPLICATION

DC/DC converter, Power supply



## MAXIMUM RATING (Ta=25°C)

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°C)	500	mW
$T_j$	Junction temperature	+150	°C
$T_{stg}$	Storage temperature	-55 ~ +150	°C



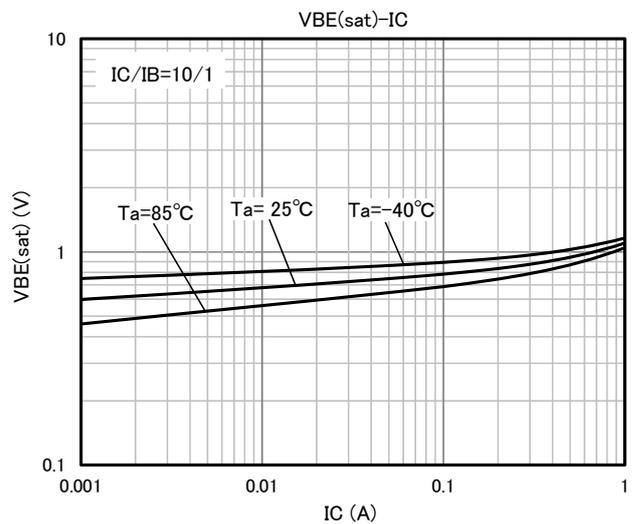
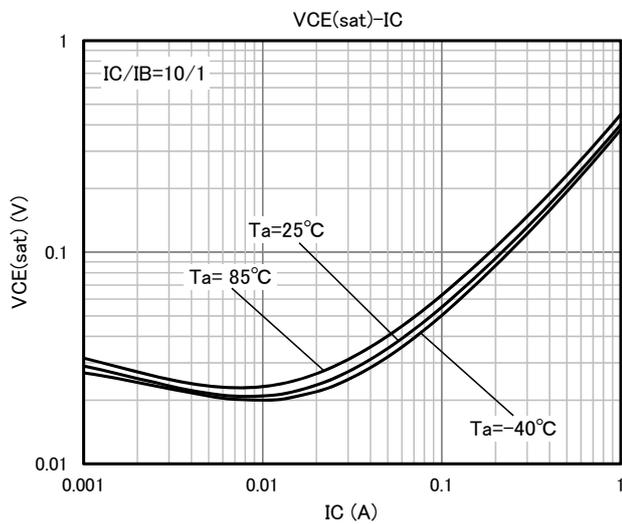
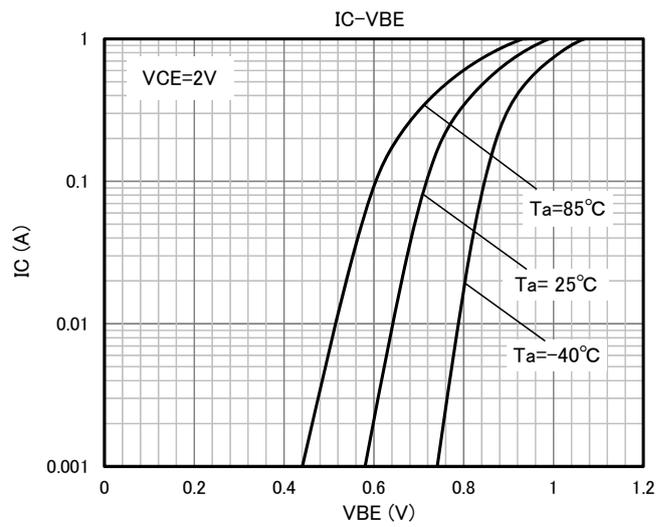
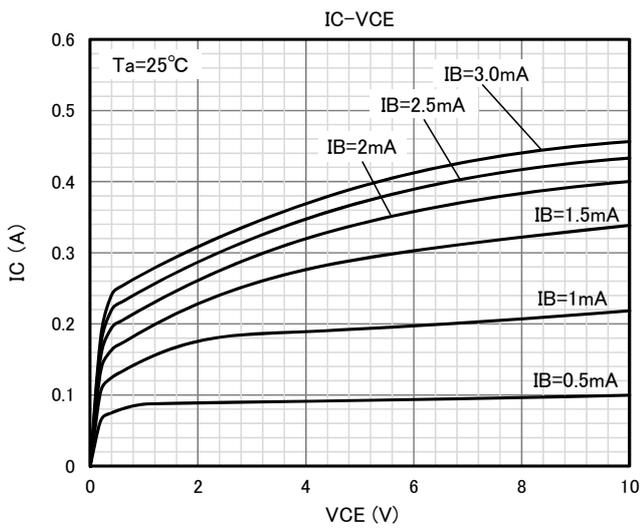
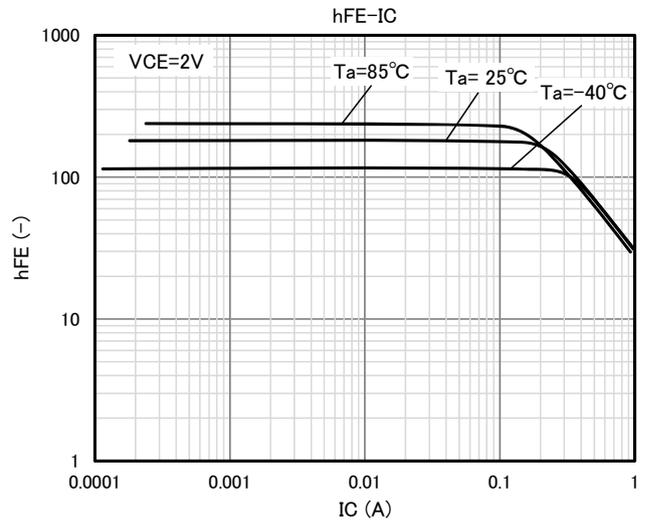
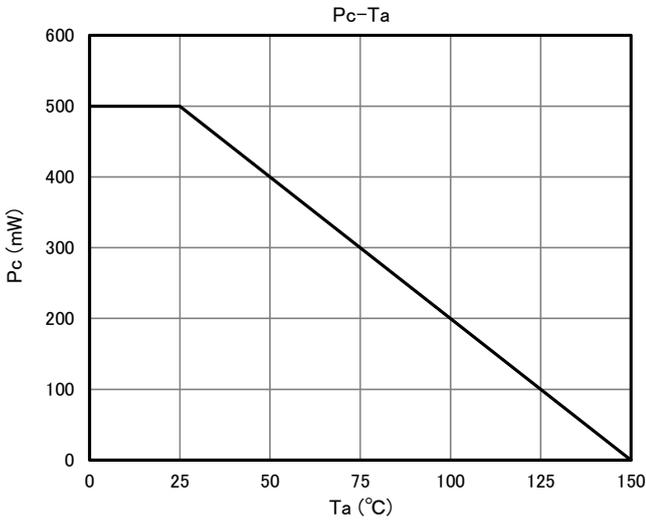
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B breakdown voltage	$I_C=10 \mu A, I_E=0mA$	120	-	-	V
$V_{(BR)EBO}$	E to B breakdown voltage	$I_E=10 \mu A, I_C=0mA$	6	-	-	V
$V_{(BR)CEO}$	C to E breakdown voltage	$I_C=1mA, R_{BE}=\infty$	100	-	-	V
$I_{CBO}$	Collector cut off current	$V_{CB}=120V, I_E=0mA$	-	-	500	nA
$I_{EBO}$	Emitter cut off current	$V_{EB}=6V, I_C=0mA$	-	-	500	nA
hFE	DC forward current gain	$V_{CE}=2V, I_C=150mA$	100	-	300	-
$V_{CE(sat)}$	C to E saturation voltage	$I_C=500mA, I_B=50mA$	-	-	0.5	V
fT	Gain bandwidth product	$V_{CE}=10V, I_E=50mA$	-	270	-	MHz
Cob	Collector output capacitance	$V_{CB}=10V, I_E=0mA, f=1MHz$	-	5	-	pF

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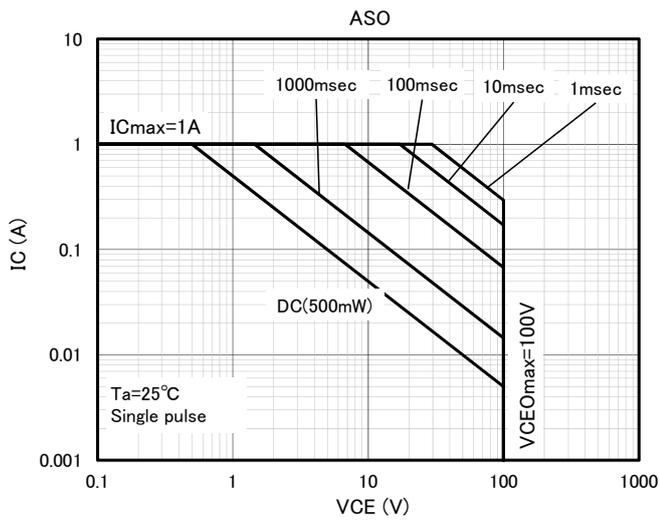
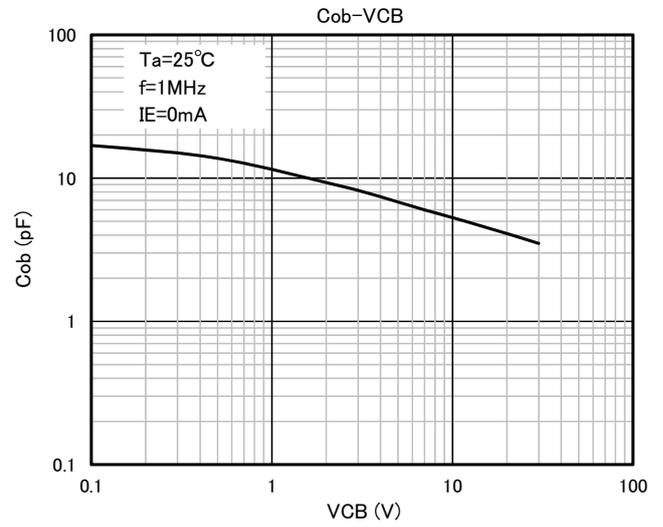
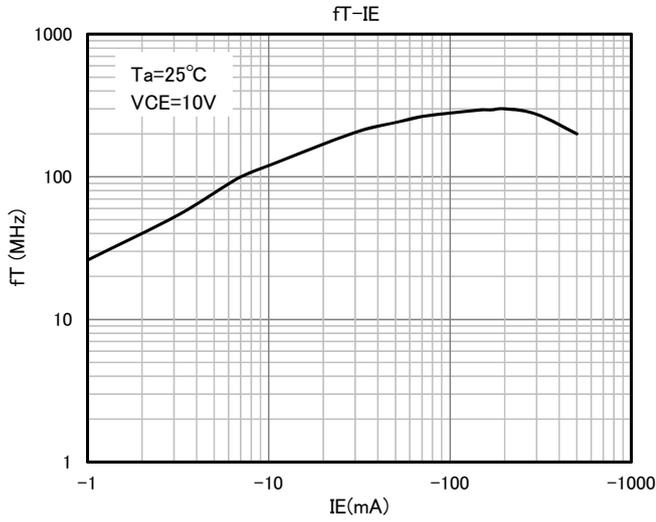
## TYPICAL CHARACTERISTICS



<SMALL-SIGNAL TRANSISTOR>

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