

# INA5001AP1

FOR LOW FREQUENCY AMPLIFY APPLICATION  
SILICON PNP EPITAXIAL TYPE

## DESCRIPTION

INA5001AP1 is a super mini package resin sealed silicon PNP epitaxial transistor, It is designed for relay drive or Power supply application.

## FEATURE

- Super mini package for easy mounting
- Low  $V_{CE(sat)}$   $V_{CE(sat)} = -0.5 \text{ V max} (@I_C = -500\text{mA}/I_B = -50\text{mA})$
- High collector current  $I_C = -1\text{A}$
- High voltage  $V_{CEO} = -50\text{V}$

## APPLICATION

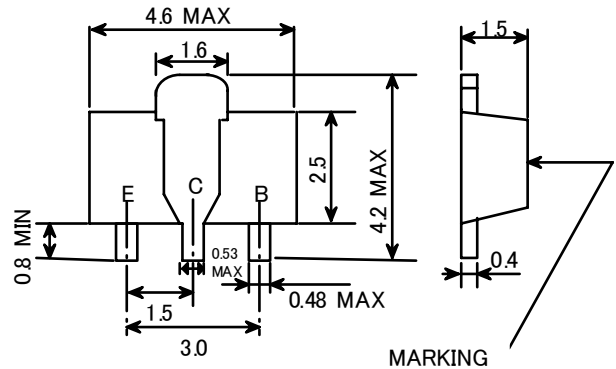
Relay drive, Power supply for audio equipment, VTR, etc

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

Symbol	Parameter	Ratings	Unit
$V_{CBO}$	Collector to Base voltage	-50	V
$V_{EBO}$	Emitter to Base voltage	-5	V
$V_{CEO}$	Collector to Emitter voltage	-50	V
$I_C$	Collector current	-1	A
$I_{CM}$	Peak collector current	-2	A
$P_C$	Collector dissipation	500	mW
$T_j$	Junction temperature	+150	$^\circ\text{C}$
$T_{stg}$	Storage temperature	-55 ~ +150	$^\circ\text{C}$

## OUTLINE DRAWING

Unit: mm

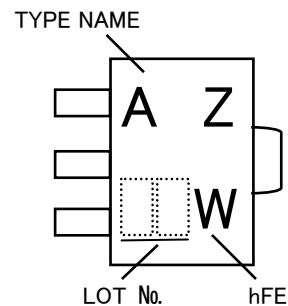


## TERMINAL CONNECTER

- ①: BASE
- ②: EMITTER
- ③: COLLECTOR

JEITA:SC-62  
JEDEC:SOT-89

## MARKING



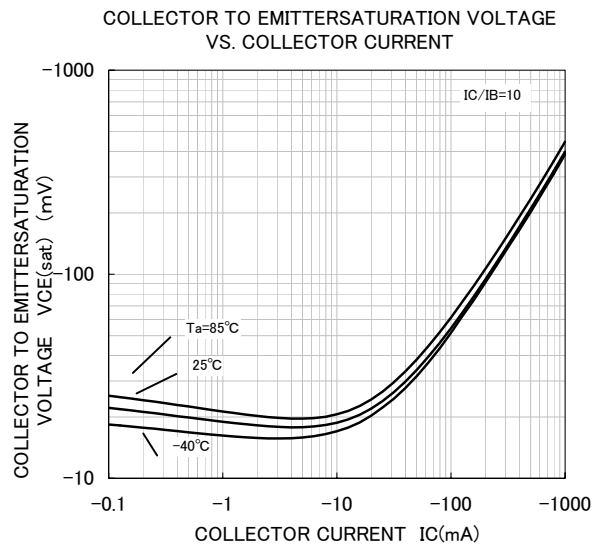
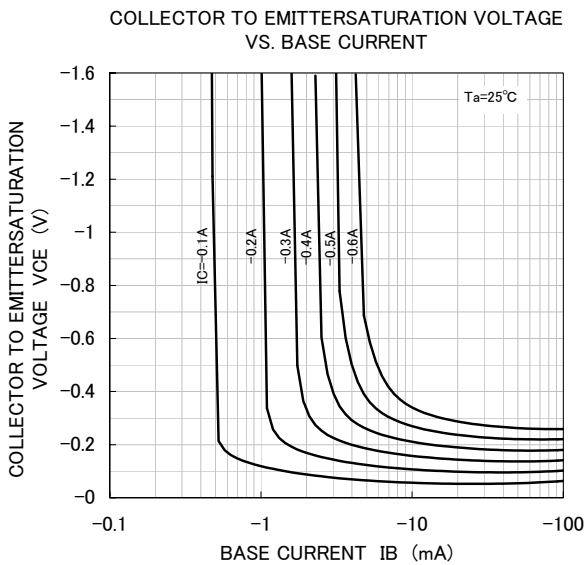
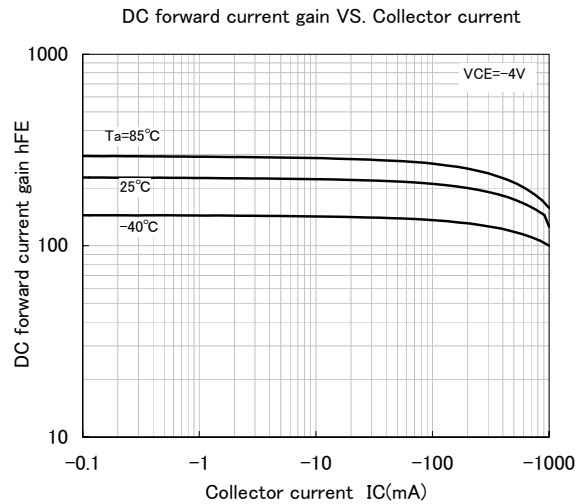
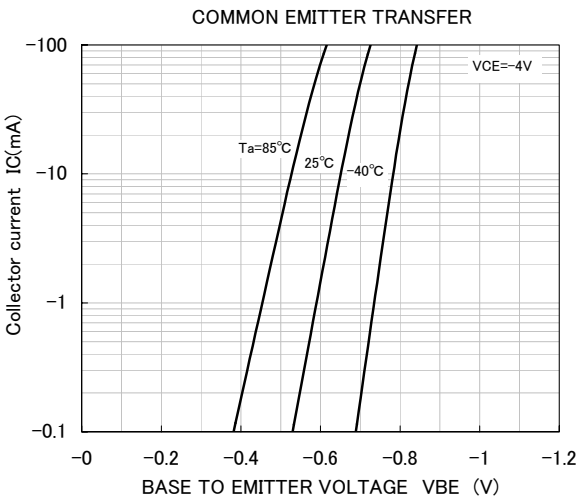
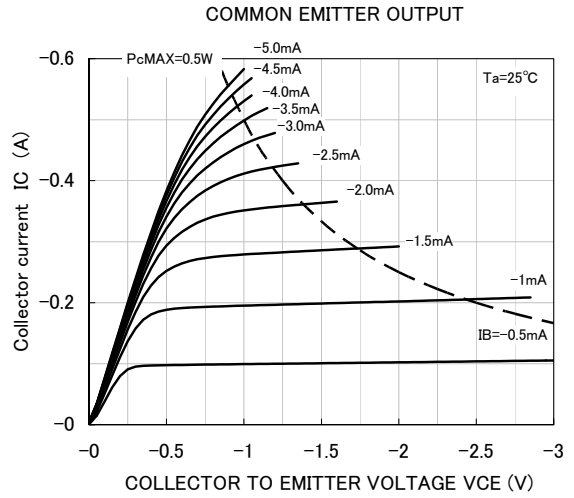
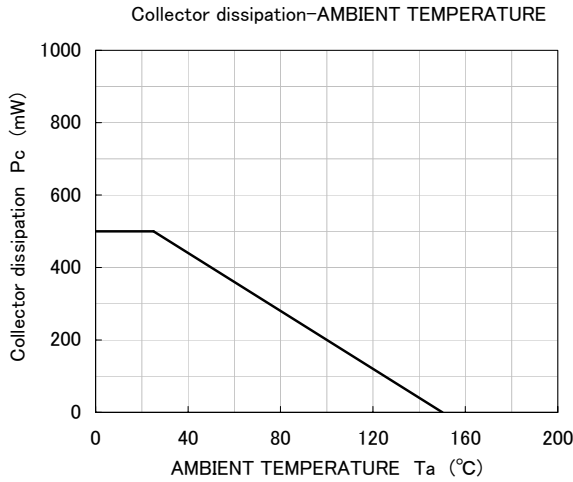
## ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to B break down voltage	$V(BR)_{CBO}$	$I_C = -10 \mu\text{A}, I_E = 0\text{mA}$	-50			V
E to B break down voltage	$V(BR)_{EBO}$	$I_E = -10 \mu\text{A}, I_C = 0\text{mA}$	-5			V
C to E break down voltage	$V(BR)_{CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-50			V
Collector cut off current	$I_{CBO}$	$V_{CB} = -50\text{V}, I_E = 0\text{mA}$			-0.1	$\mu\text{A}$
Emitter cut off current	$I_{EBO}$	$V_{EB} = -5\text{V}, I_C = 0\text{mA}$			-0.1	$\mu\text{A}$
DC forward current gain	hFE	$V_{CE} = -4\text{V}, I_C = -0.1\text{A}$	160		380	-
C to E Saturation Voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-0.5	V
Gain bandwidth product	fT	$V_{CE} = -2\text{V}, I_E = 500\text{mA}$		120		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0\text{mA}, f = 1\text{MHz}$		12		pF

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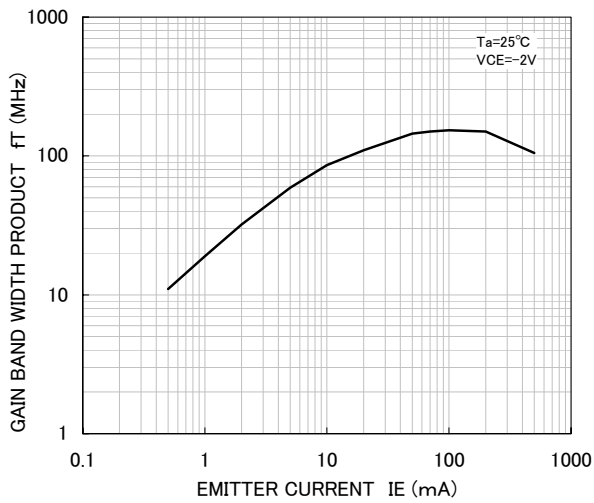
## TYPICAL CHARACTERISTICS



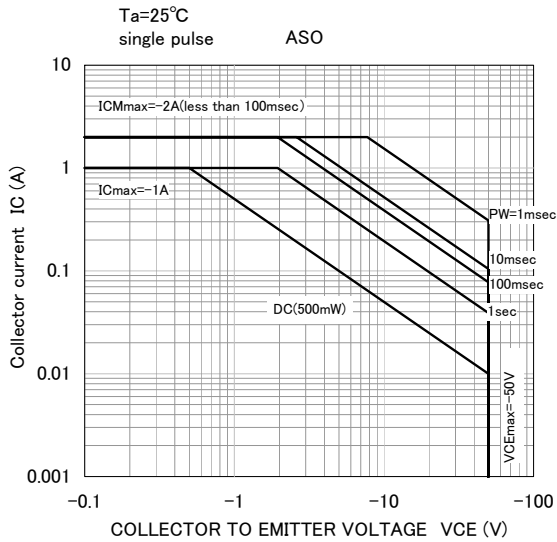
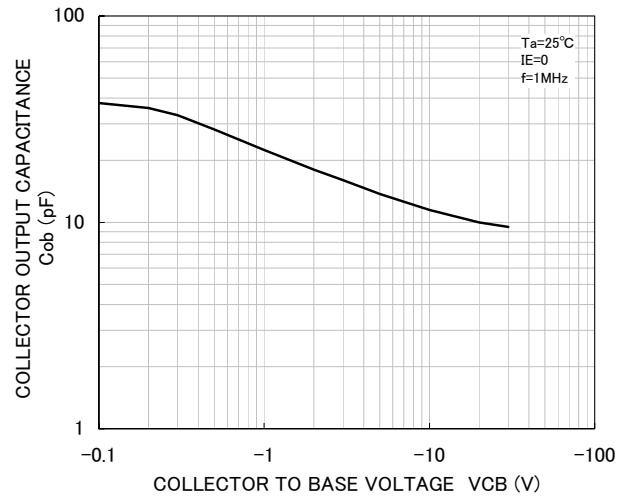
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GAIN BAND WIDTH PRODUCT  
VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE  
VS. COLLECTOR TO BASE VOLTAGE





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