

INC5001AP1

For low frequency power amplify
Silicon NPN Epitaxial

DESCRIPTION

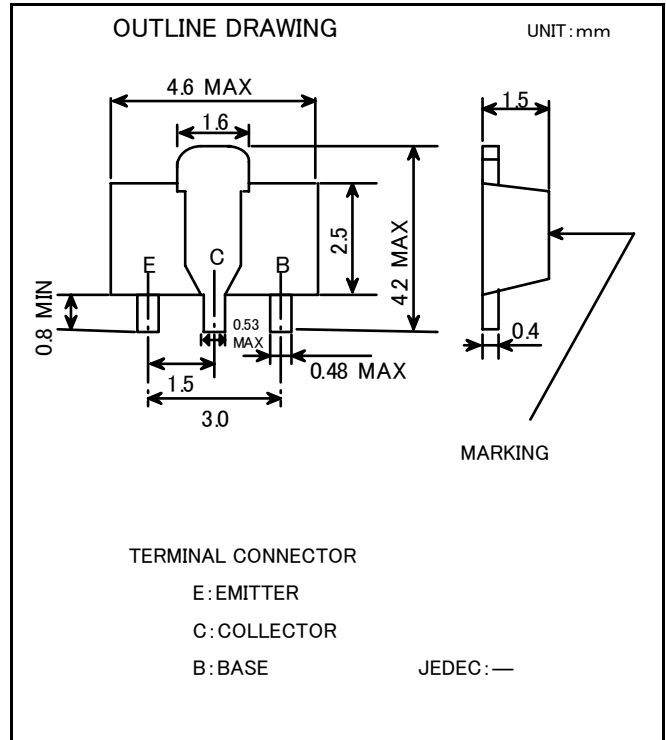
INC5001AP1 is a silicon NPN epitaxial transistor designed for relay drive or Power supply application.

FEATURE

- Small package for easy mounting.
- High voltage $V_{CE0}=60V$
- High collector current $I_C=1A$
- Low $V_{CE(sat)}$ $V_{CE(sat)}=0.25V$ max (@ $I_C=500mA$ / $I_B=50mA$)
- High collector dissipation $P_C=500mW$

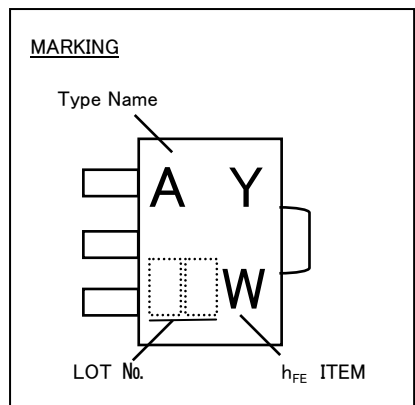
APPLICATION

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



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

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	80	V
V_{EBO}	Emitter to Base voltage	5	V
V_{CEO}	Collector to Emitter voltage	60	V
I_C	Collector current	1	A
I_{CM}	Peak Collector current	2	
P_C	Collector dissipation($T_a=25^\circ C$)	500	mW
T_J	Junction temperature	+150	$^\circ C$
T_{stg}	Storage temperature	-55~+150	$^\circ C$



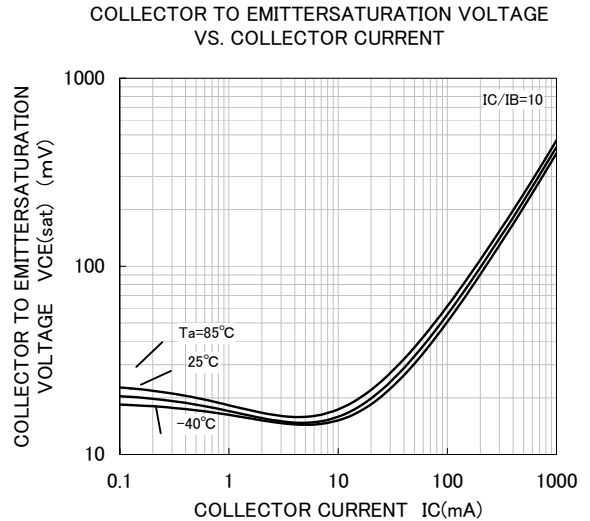
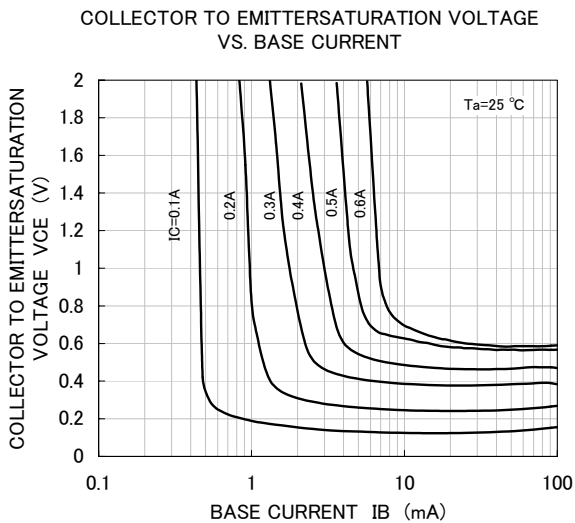
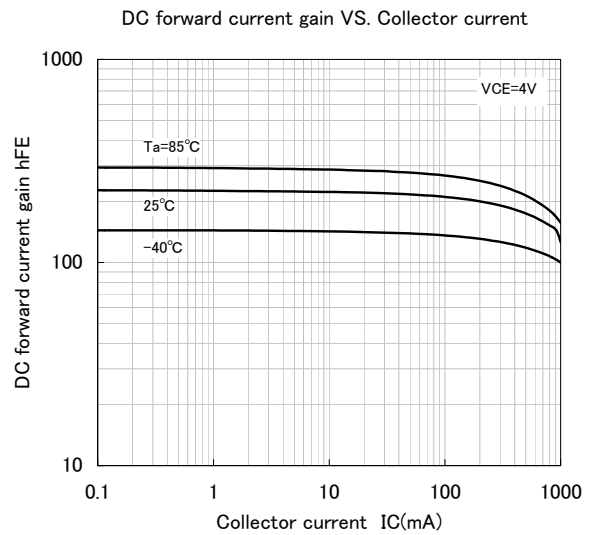
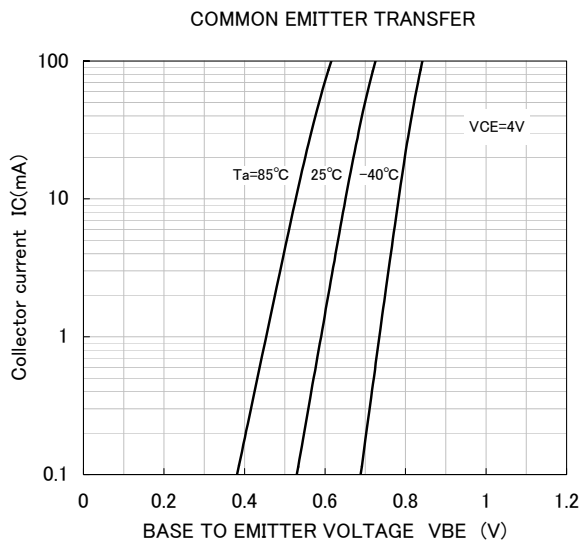
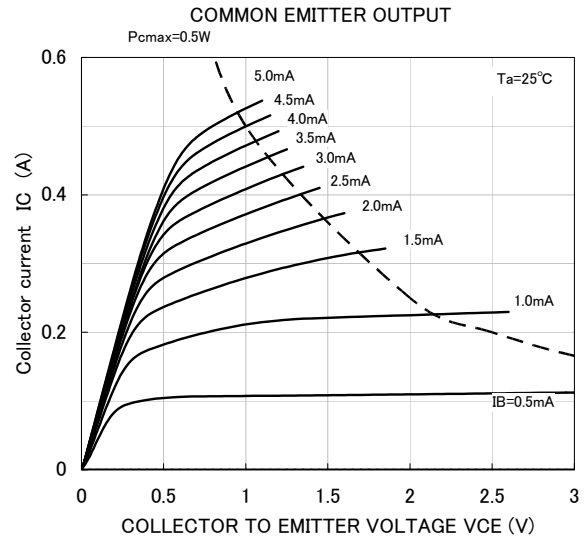
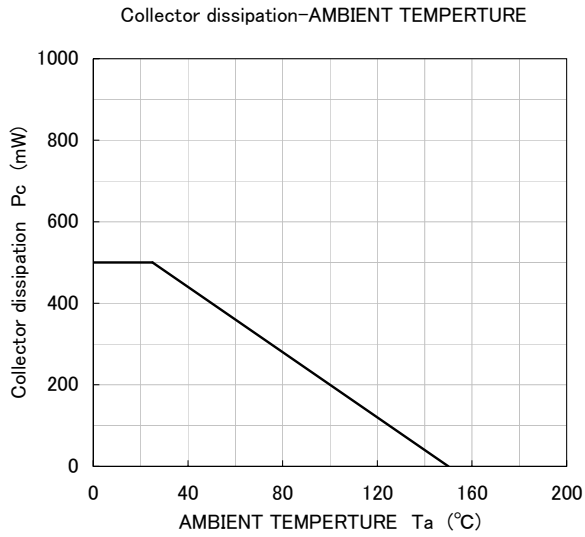
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=10 \mu A$, $I_E=0mA$	80			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10 \mu A$, $I_C=0mA$	5			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=1mA$, $R_{BE}=\infty$	60			V
I_{CBO}	Collector cut off current	$V_{CB}=80V$, $I_E=0mA$			0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB}=5V$, $I_C=0mA$			0.1	μA
h_{FE}	DC forward current gain	$V_{CE}=4V$, $I_C=0.1A$	130		320	-
$V_{CE(sat)}$	C to E saturation voltage	$I_C=500mA$, $I_B=50mA$			0.25	V
f_T	Gain band width product	$V_{CE}=10V$, $I_E=-50mA$	150			MHz
C_{ob}	Collector output capacitance	$V_{CB}=10V$, $I_E=0mA$, $f=1MHz$			10	pF

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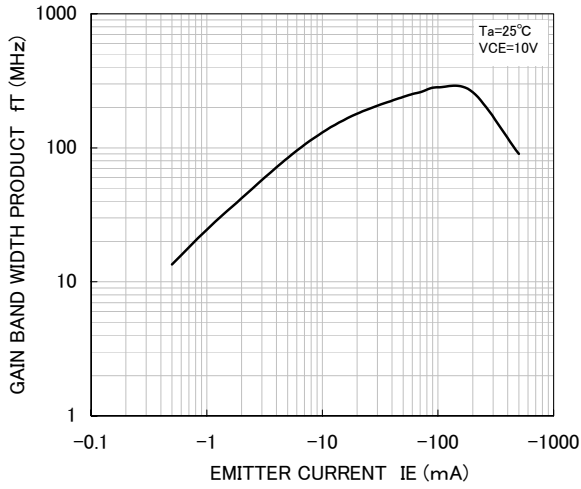
TYPICAL CHARACTERISTICS



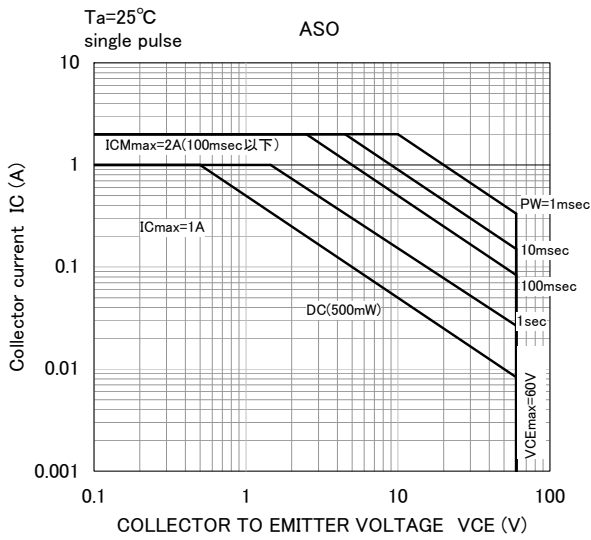
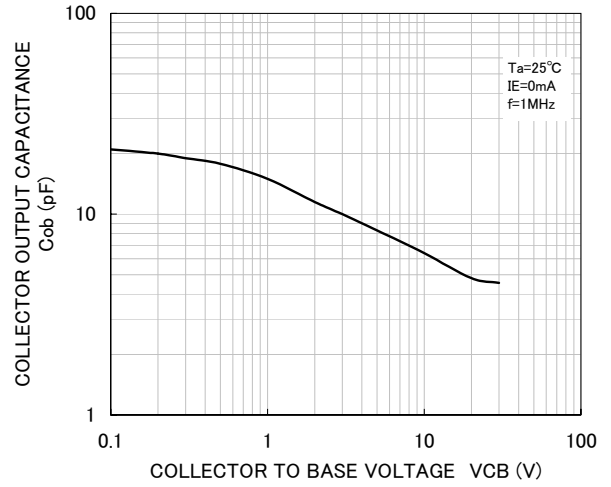
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GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE





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