

INA5002AP1

For low frequency power amplify
Silicon PNP Epitaxial

DESCRIPTION

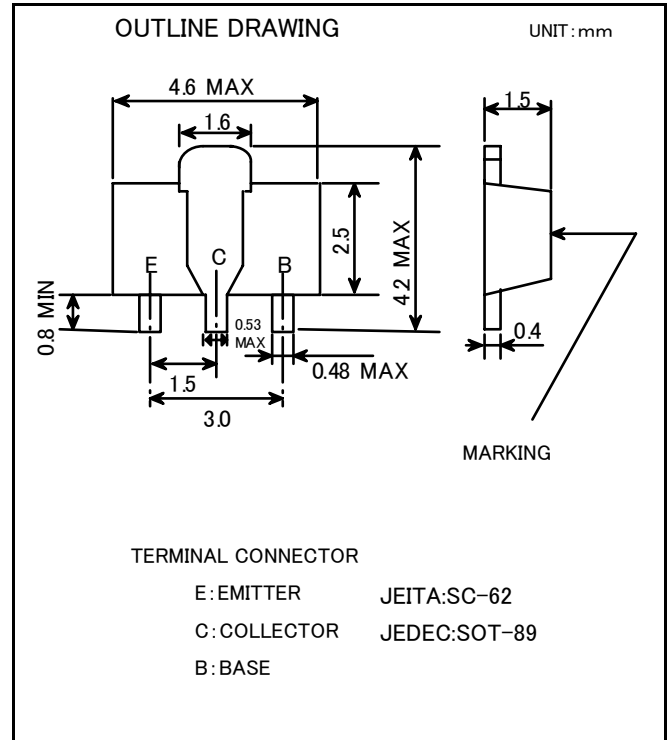
INA5002AP1 is a silicon PNP epitaxial transistor designed for relay drive or Power supply application.

FEATURE

- Small package for easy mounting.
- High voltage $V_{CE0} = -60V$
- High collector current $I_C = -3A$
- Low $V_{CE(sat)}$ $V_{CE(sat)} = -0.6V \text{ max} (@I_C = -3A / I_B = -300mA)$
- High collector dissipation $P_C = 500mW$

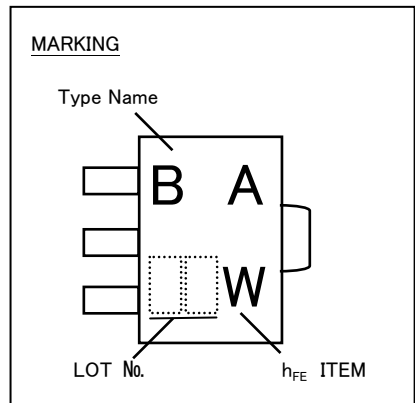
APPLICATION

DC·DC converter, Relay drive, Motor drive 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	-6	V
V_{CEO}	Collector to Emitter voltage	-60	V
I_C	Collector current	-3	A
I_{CM}	Peak Collector current	-6	
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 ($T_a = 25^\circ C$)

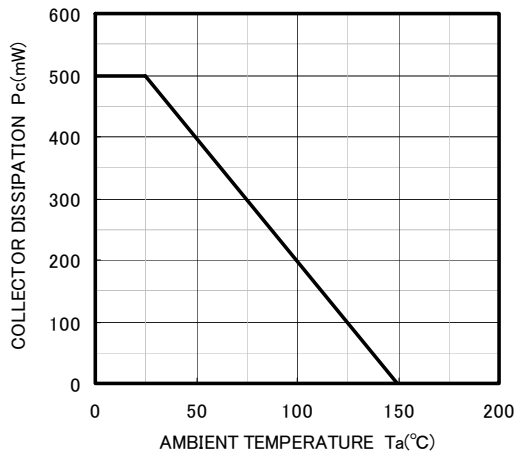
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B break down voltage	$I_C = -100 \mu A, I_E = 0mA$	-80	-	-	V
$V_{(BR)EBO}$	E to B break down voltage	$I_E = -100 \mu A, I_C = 0mA$	-6	-	-	V
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -1mA, R_{BE} = \infty$	-60	-	-	V
I_{CBO}	Collector cut off current	$V_{CB} = -60V, I_E = 0mA$	-	-	-1.0	μA
I_{EBO}	Emitter cut off current	$V_{EB} = -4V, I_C = 0mA$	-	-	-1.0	μA
h_{FE}	DC forward current gain	$V_{CE} = -2V, I_C = -0.5A$	100	-	300	-
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -3A, I_B = -300mA$	-	-	-0.5	V
f_T	Gain band width product	$V_{CE} = -5V, I_E = 100mA$	-	200	-	MHz
C_{ob}	Collector output capacitance	$V_{CB} = -10V, I_E = 0mA, f = 1MHz$	-	25	-	pF

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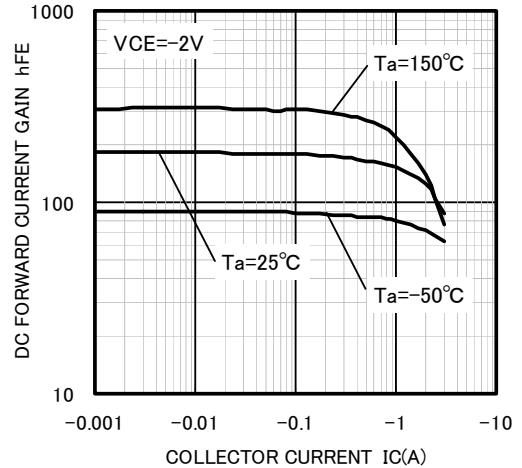
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TYPICAL CHARACTERISTICS

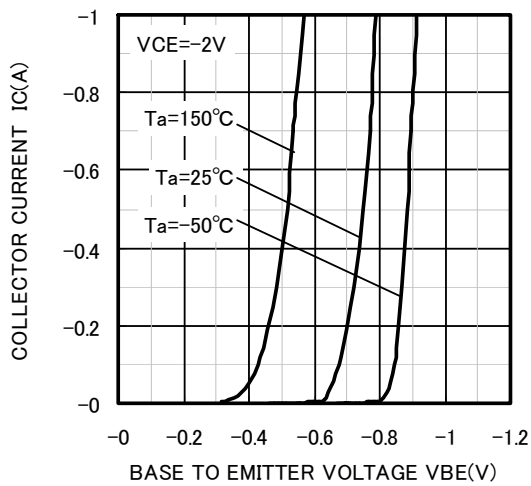
COLLECTOR DISSIPATION
VS. AMBIENT TEMPERATURE



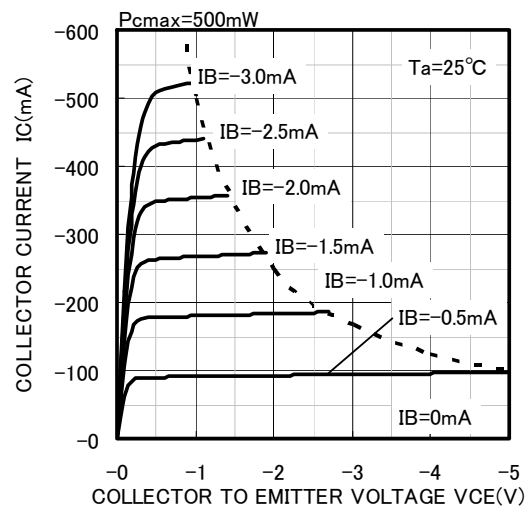
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



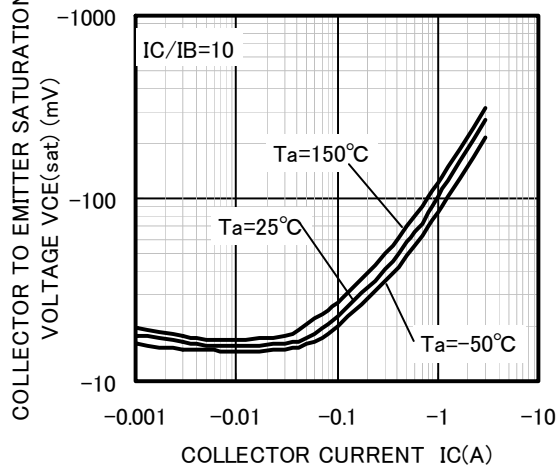
COMMON EMITTER TRANSFER



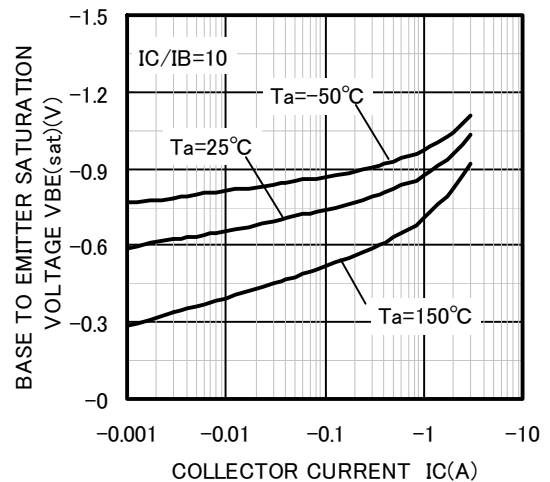
COMMON EMITTER OUTPUT



COLLECTOR TO EMITTER SATURATION VOLTAGE
VS. COLLECTOR CURRENT

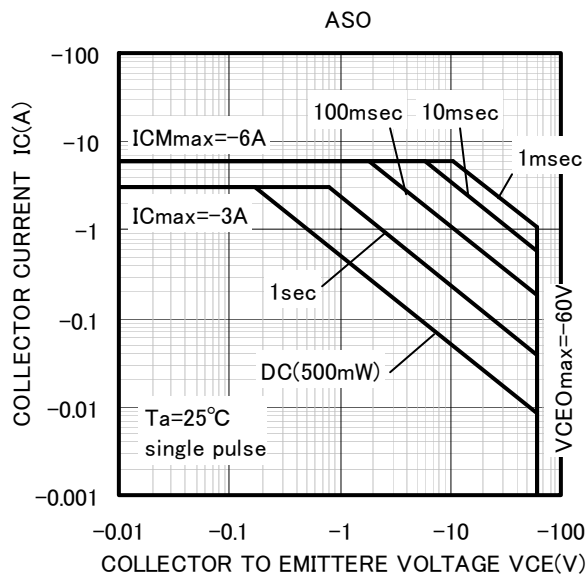
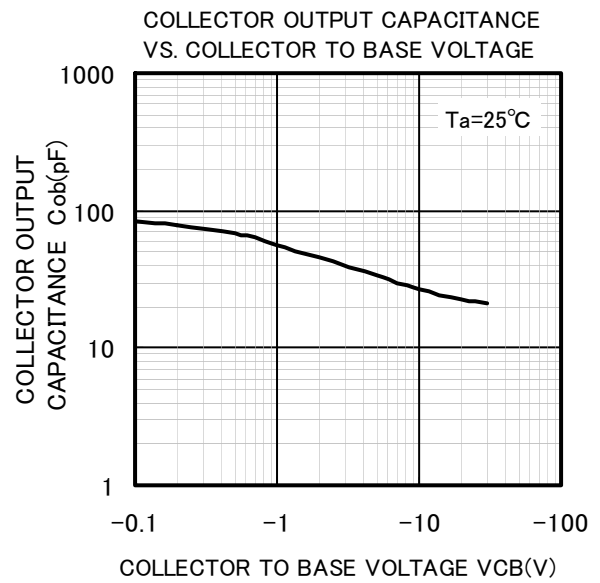
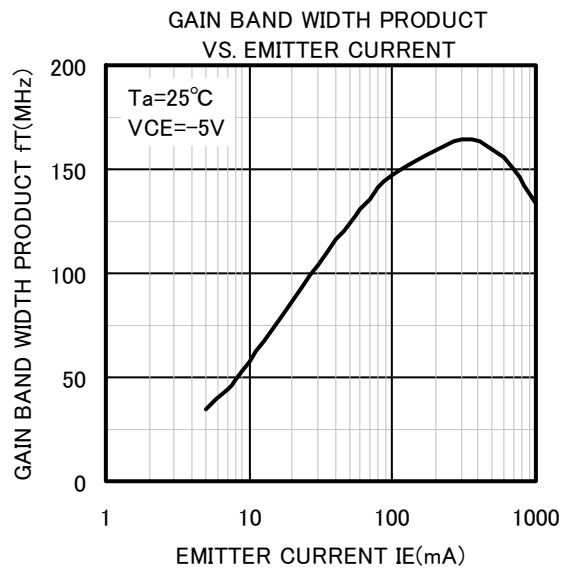


BASE TO EMITTER SATURATION VOLTAGE
VS. COLLECTOR CURRENT



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