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

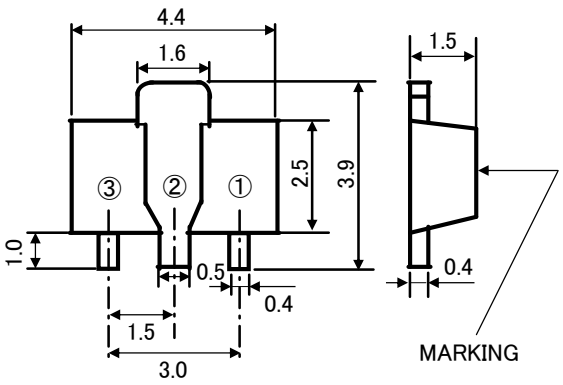
- Small package for easy mounting.
- High voltage V_{CEO}=60V
- High collector current I_C=1A
- Low VCE(sat) VCE(sat)=0.25V max(@I_C=500mA/ I_B=50mA)
- High collector dissipation P_C=500mW

APPLICATION

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

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

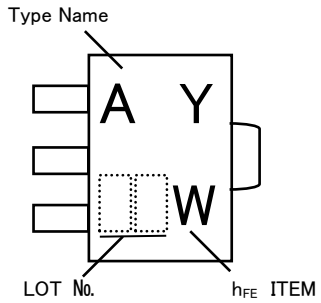
①:BASE
②:COLLECTOR
③:EMITTER

JEITA:SC-62
JEDEC:SOT-89

MAXIMUM RATING(Ta=25℃)

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(Ta=25℃)	500	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

MARKING

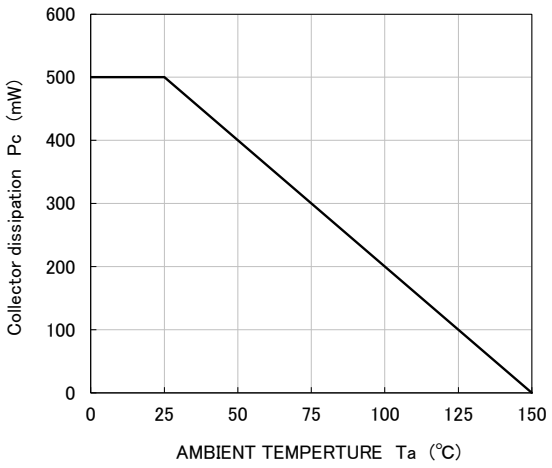


ELECTRICAL CHARACTERISTICS (Ta=25℃)

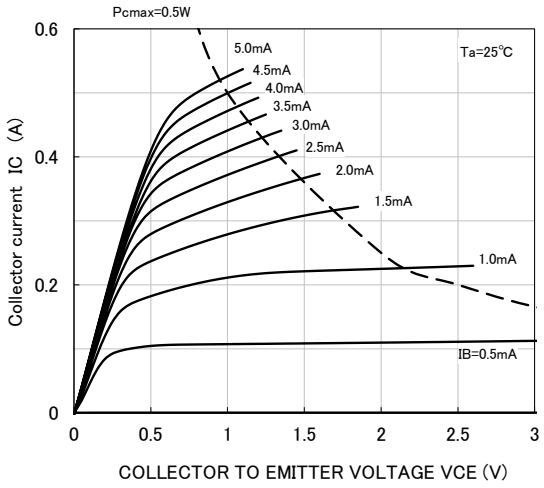
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B breakdown voltage	I_C=10μA, I_E=0mA	80	—	—	V
$V_{(BR)EBO}$	E to B breakdown voltage	I_E=10μA, I_C=0mA	5	—	—	V
$V_{(BR)CEO}$	C to E breakdown voltage	I_C=1mA, R_{BE}=∞	60	—	—	V
I_{CBO}	Collector cut off current	V_{CB}=80V, 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
Cob	Collector output capacitance	V_{CB}=10V, I_E=0mA, f=1MHz	—	—	10	pF

TYPICIAL CHARACTERISTICS

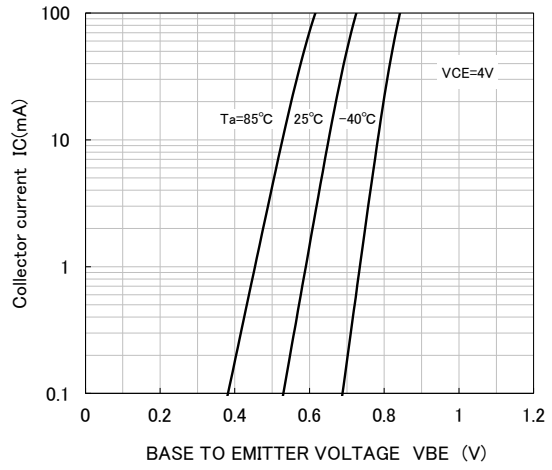
Collector dissipation–AMBIENT TEMPERTURE



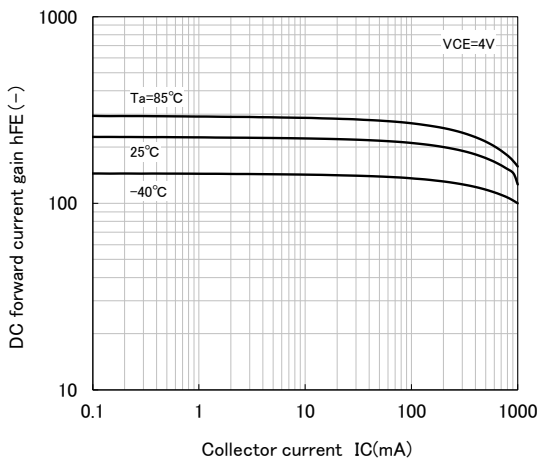
COMMON EMITTER OUTPUT



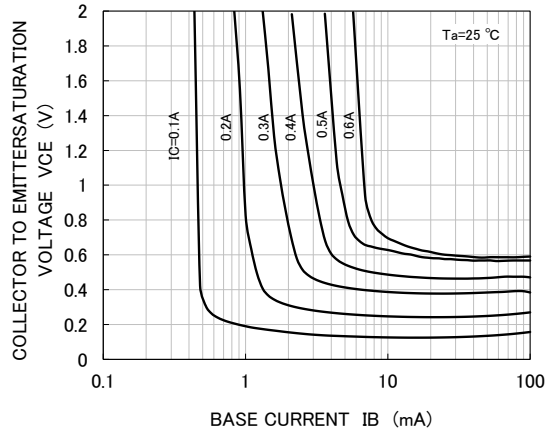
COMMON EMITTER TRANSFER



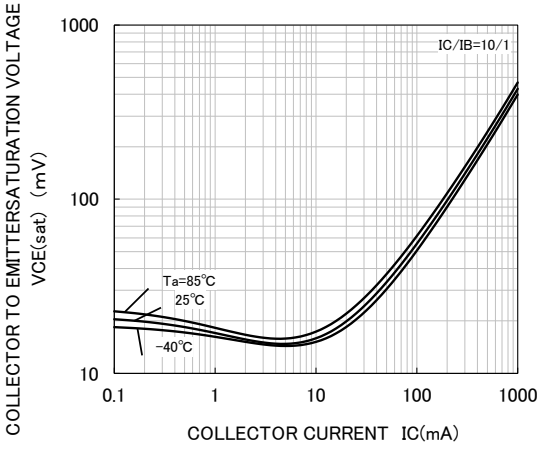
DC forward current gain VS. Collector current



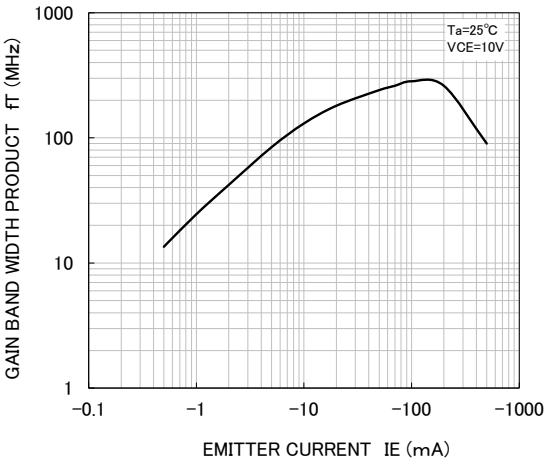
COLLECTOR TO EMITTERSATURATION VOLTAGE
VS. BASE CURRENT



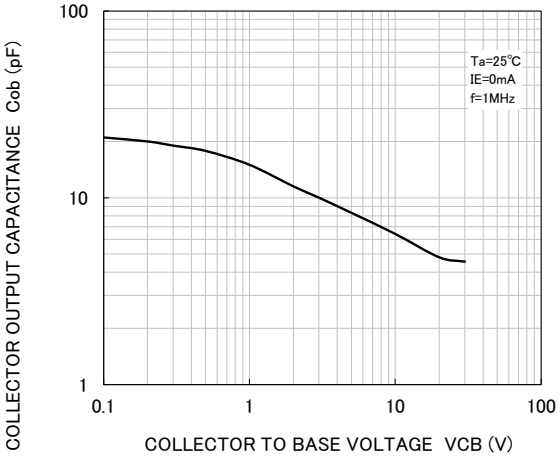
COLLECTOR TO EMITTERSATURATION VOLTAGE
VS. COLLECTOR CURRENT



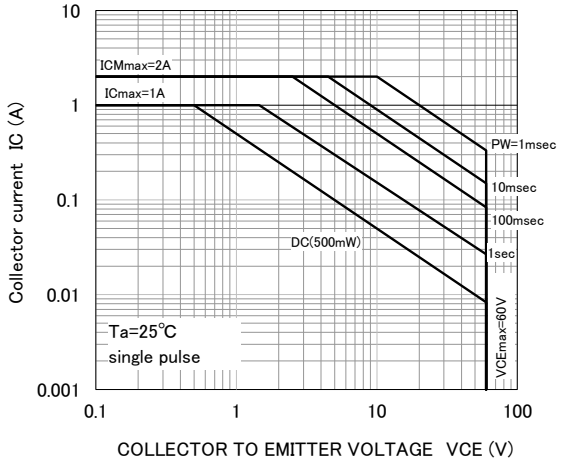
GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE



ASO



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