

ISA1235AC1-T150

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

AEC-Q101 Compliance

DESCRIPTION

ISA1235AC1 is a mini package resin sealed silicon PNP epitaxial transistor, It is designed for low frequency voltage application.

FEATURE

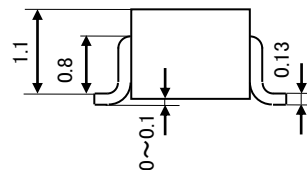
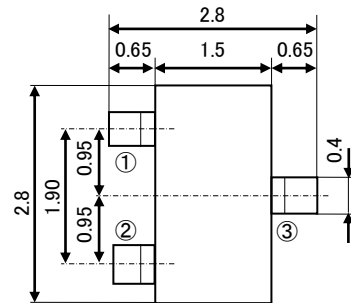
- Small collector to emitter saturation voltage.
 $V_{CE(sat)} = -0.3V \text{ max (@} I_C = -100mA / I_B = -10mA \text{)}$
- Excellent linearity of DC forward current gain.
- Super mini package for easy mounting

APPLICATION

For small type machine low frequency voltage amplify application

OUTLINE DRAWING

Unit: mm



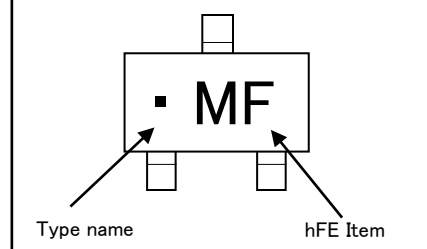
TERMINAL CONNECTER

- ①: BASE JEITA:SC-59
- ②: EMITTER JEDEC: Similar to TO-236
- ③: COLLECTOR

MAXIMUM RATINGS (T_a=25°C)

Parameter	Symbol	Ratings	Unit
Collector to Base voltage	V _{CB0}	-60	V
Emitter to Base voltage	V _{EB0}	-6	V
Collector to Emitter voltage	V _{CEO}	-50	V
Collector current	I _C	-200	mA
Collector dissipation	P _C	200	mW
Junction temperature	T _J	+150	°C
Storage temperature	T _{stg}	-55 ~ +150	°C

MARKING



ELECTRICAL CHARACTERISTICS (T_a=25°C)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E breakdown voltage	V _{(BR)CEO}	I _C = -100 μA, R _{BE} = ∞	-50	-	-	V
Collector cut off current	I _{CB0}	V _{CB} = -60V, I _E = 0mA	-	-	-0.1	μA
Emitter cut off current	I _{EB0}	V _{EB} = -6V, I _C = 0mA	-	-	-0.1	μA
DC forward current gain ※	h _{FE}	V _{CE} = -6V, I _C = -1mA	150	-	500	-
DC forward current gain	h _{FE}	V _{CE} = -6V, I _C = -0.1mA	90	-	-	-
C to E Saturation voltage	V _{CE(sat)}	I _C = -100mA, I _B = -10mA	-	-	-0.3	V
Gain bandwidth product	f _T	V _{CE} = -6V, I _E = 10mA	-	200	-	MHz
Collector output capacitance	C _{ob}	V _{CB} = -6V, I _E = 0, f = 1MHz	-	4.0	-	pF
Noise figure	NF	V _{CE} = -6V, I _E = 0.3mA, f = 100Hz, R _G = 10k Ω	-	-	20	dB

※) It shows hFE classification at right table.

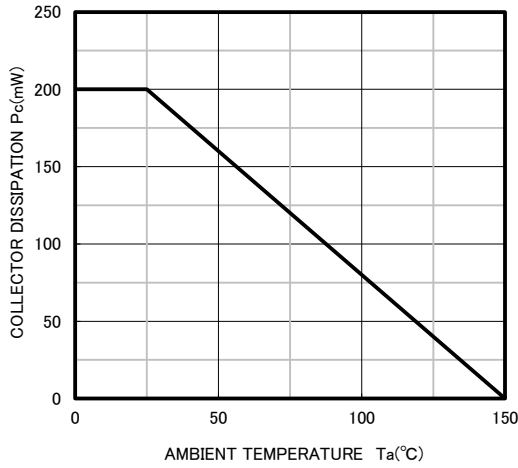
Item	E	F
hFE	150 ~ 300	250 ~ 500

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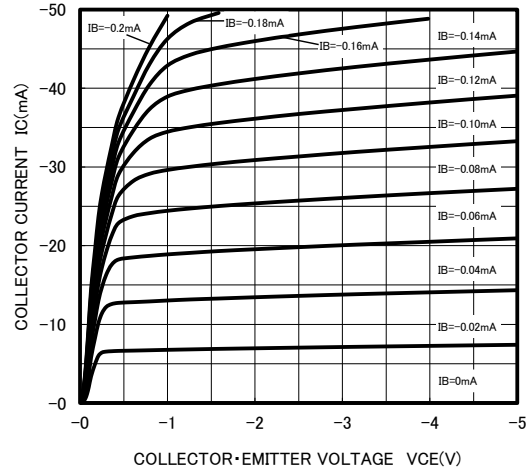
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TYPICAL CHARACTERISTICS

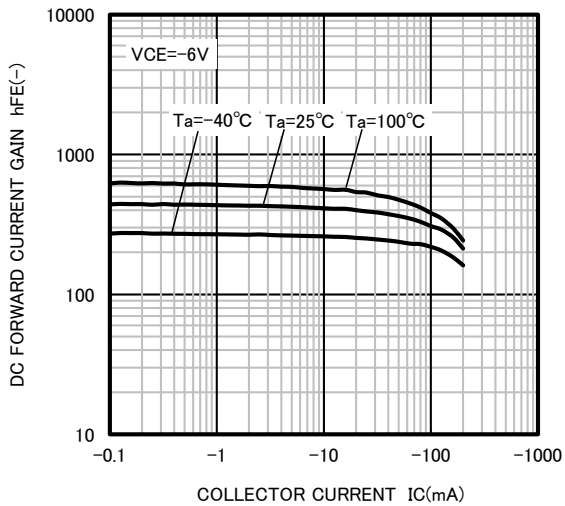
COLLECTOR DISSIPATION
VS AMBIENT TEMPERATURE



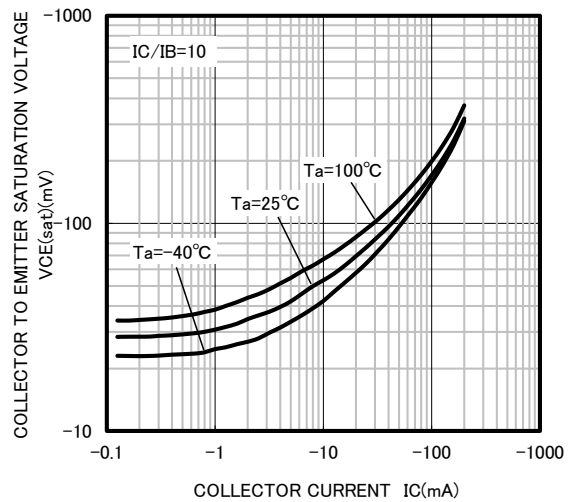
COMMON EMITTER OUTPUT



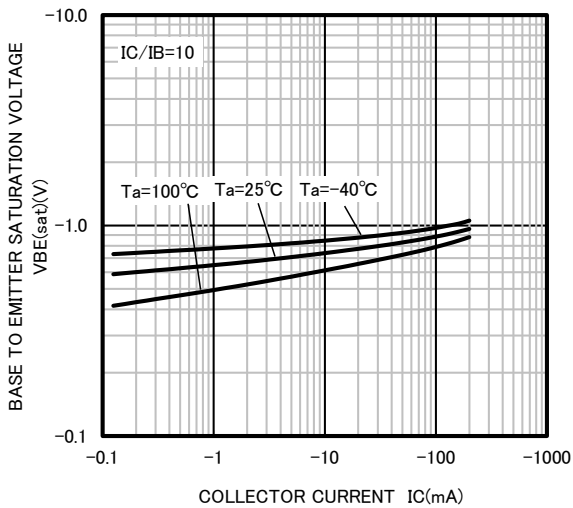
DC FORWARD CURRENT GAIN
VS COLLECTOR CURRENT



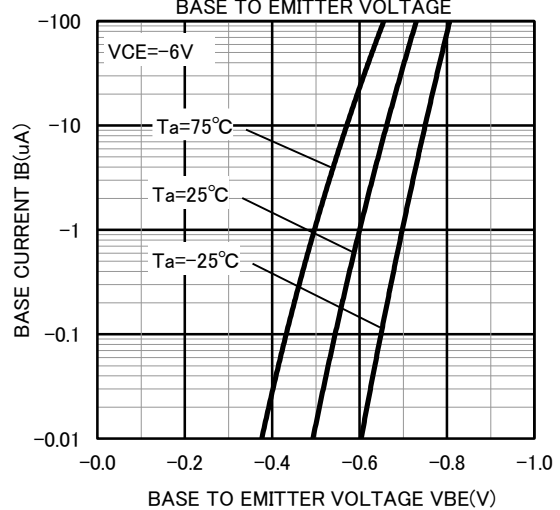
COLLECTOR TO EMITTER SATURATION VOLTAGE
VS COLLECTOR CURRENT



BASE TO EMITTER SATURATION VOLTAGE
VS COLLECTOR CURRENT



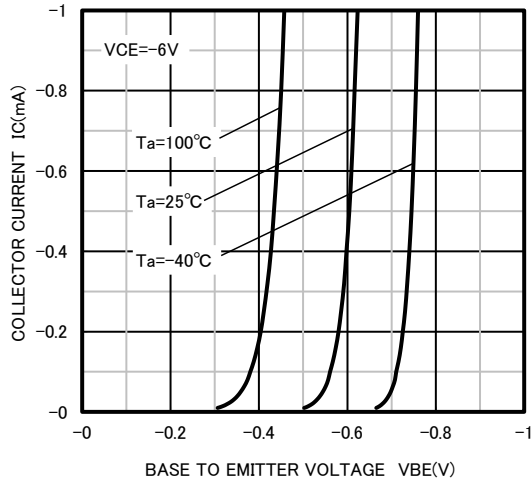
BASE CURRENT VS.
BASE TO EMITTER VOLTAGE



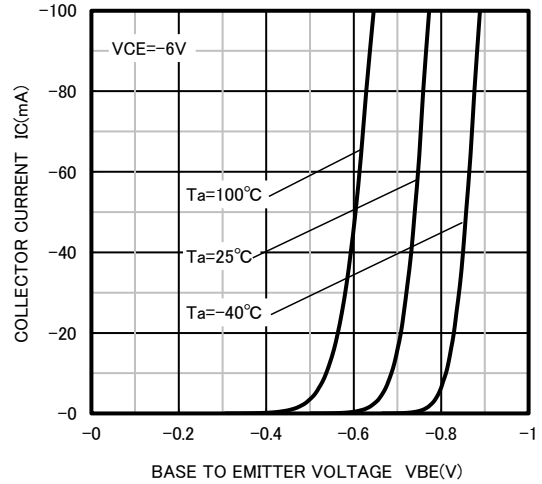
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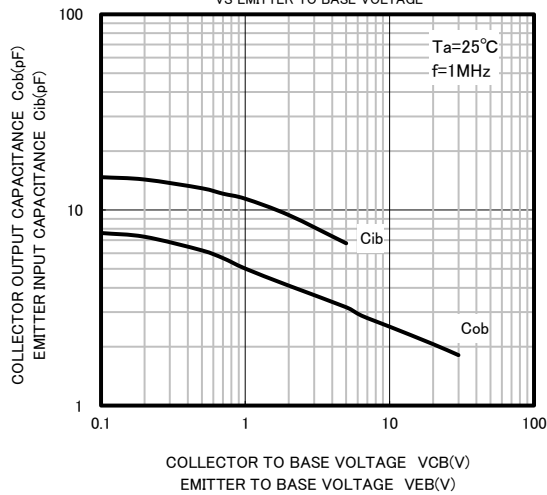
COMMON EMITTER TRANSFER



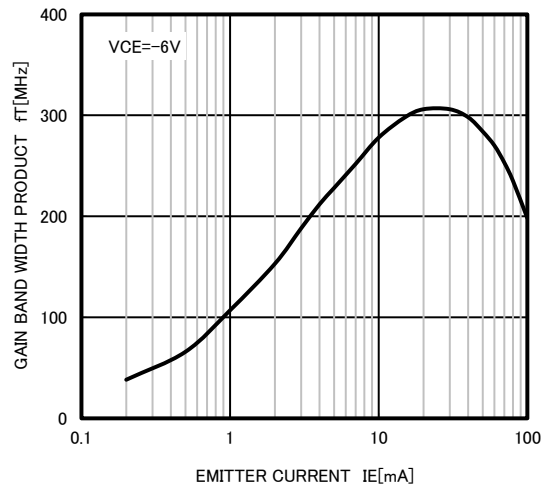
COMMON EMITTER TRANSFER



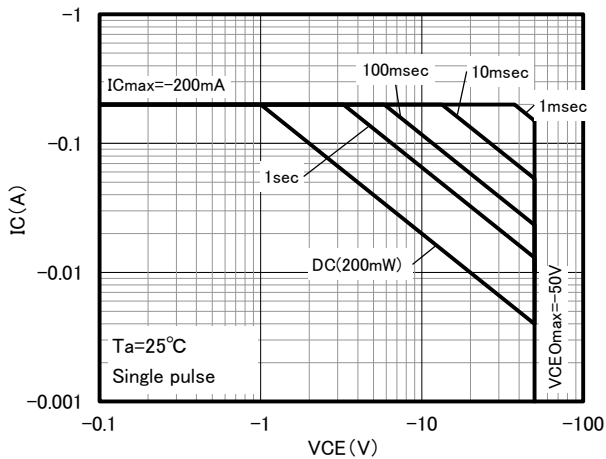
COLLECTOR OUTPUT CAPACITANCE VS COLLECTOR TO BASE VOLTAGE
EMITTER INPUT CAPACITANCE VS EMITTER TO BASE VOLTAGE



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



ASO



Keep safety first in your circuit designs!

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