ISA1235AC1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

ISA1235AC1 is a mini package resin sealed silicon PNP epitaxial transistor,

It is designed for low frequency voltage application.

FEATURE

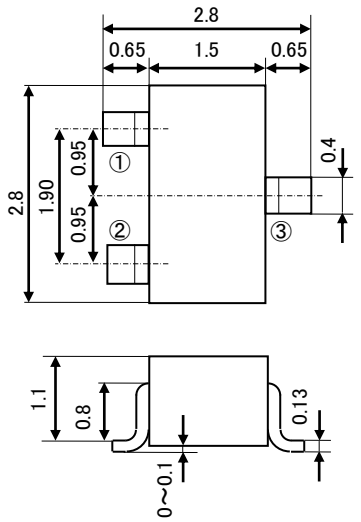
- Small collector to emitter saturation voltage.
  $V^{CE(sat)}$=−0.3V max(@I_C=−100mA/I_B=−10mA)
- Excellent linearity of DC forward current gain.
- Super mini package for easy mounting

APPLICATION

For small type machine low frequency voltage amplify application

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTER

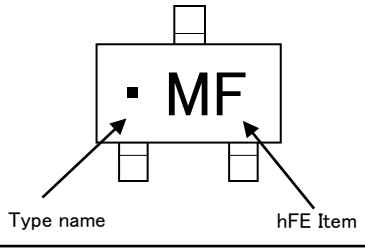
①:BASE
②:EMITTER
③:COLLECTOR

JEITA:SC-59
JEDEC: Similar to TO-236

MAXIMUM RATINGS(Ta=25℃)

Parameter	Symbol	Ratings	Unit
Collector to Base voltage	V_{CBO}	−60	V
Emitter to Base voltage	V_{EBO}	−6	V
Collector to Emitter voltage	V_{CEO}	−50	V
Collector current	I_C	−200	mA
Collector dissipation	P_C	200	mW
Junction temperature	Tj	+150	℃
Storage temperature	Tstg	−55～+150	℃

MARKING



ELECTRICAL CHARACTERISTICS(Ta=25℃)

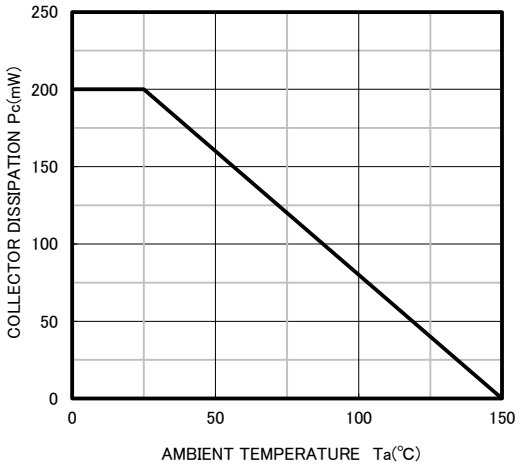
Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E breakdown voltage	$V_{(BR)CEO}$	I_C=−100μA, R_{BE}=∞	−50	−	−	V
Collector cut off current	I_{CBO}	V_{CB}=−60V, I_E=0mA	−	−	−0.1	μA
Emitter cut off current	I_{EBO}	V_{EB}=−6V, I_C=0mA	−	−	−0.1	μA
DC forward current gain ※	h_{FE}	V_{CE}=−6V, 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	Cob	V_{CB}=−6V, I_E=0, f=1MHz	−	4.0	−	pF
Noise figure	NF	V_{CE}=−6V, I_E=0.3mA, f=100Hz, RG=10kΩ	−	−	20	dB

※) It shows hFE classification at right table.

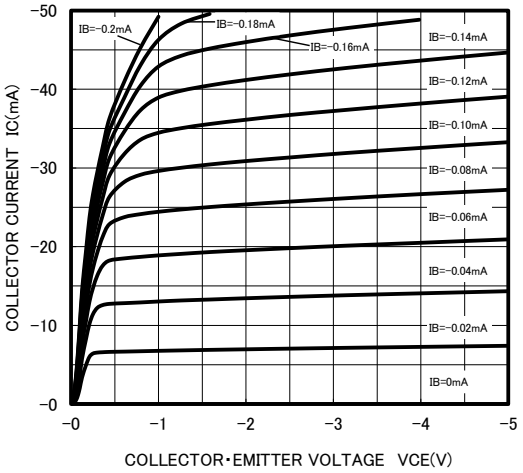
Item	E	F
hFE	150～300	250～500

TYPICAL CHARACTERISTICS

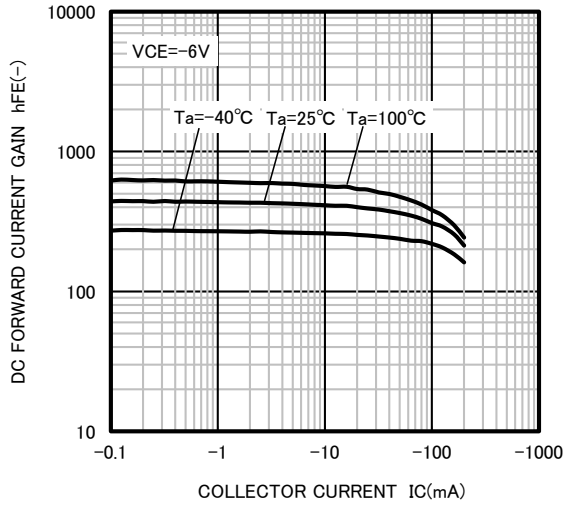
COLLECTOR DISSIPATION
VS AMBIENT TEMPERATURE



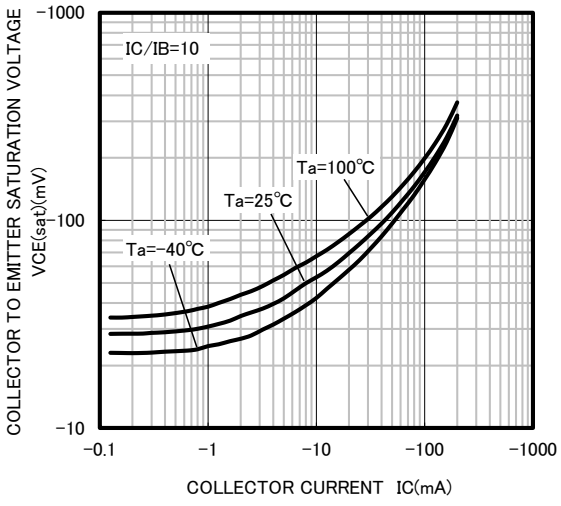
COMMON EMITTER OUTPUT



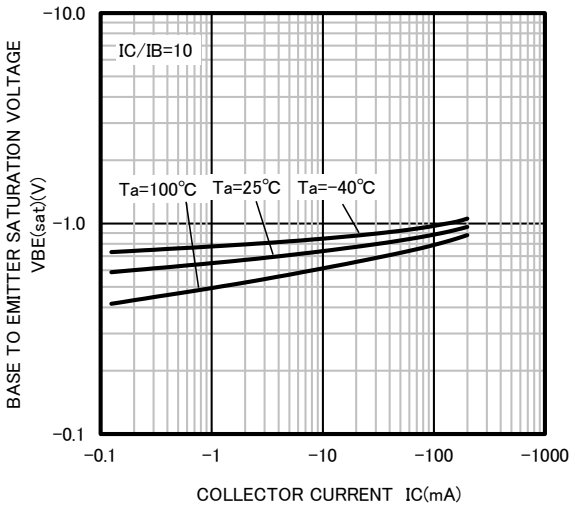
DC FORWARD CURRENT GAIN
VS COLLECTOR CURRENT



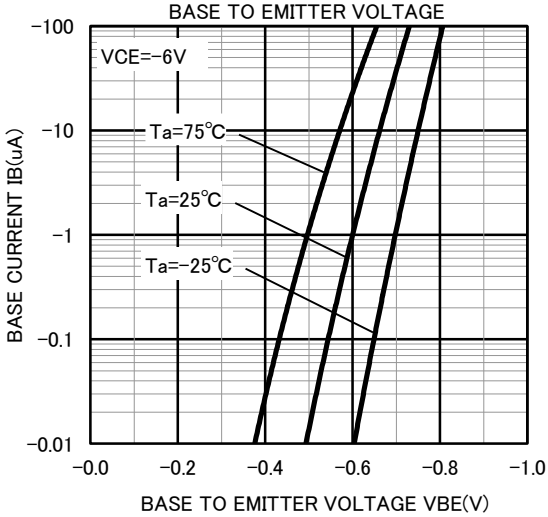
COLLECTOR TO EMITTER SATURATION VOLTAGE
VS COLLECTOR CURRENT



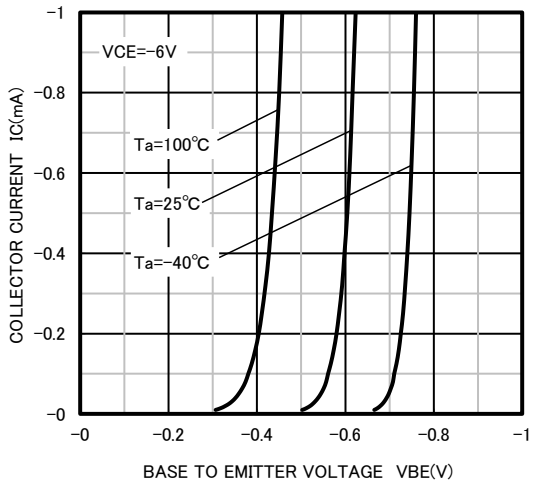
BASE TO EMITTER SATURATION VOLTAGE
VS COLLECTOR CURRENT



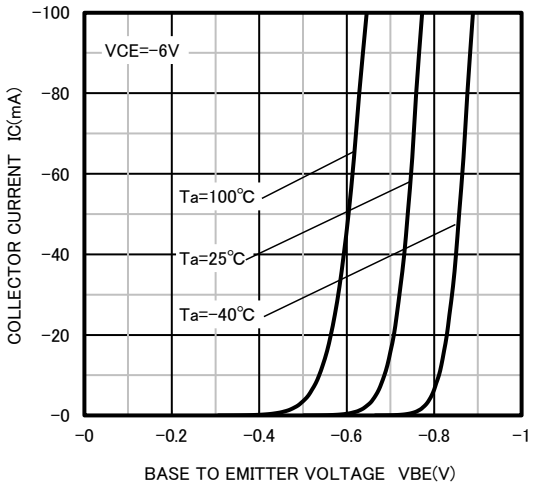
BASE CURRENT VS.
BASE TO EMITTER VOLTAGE



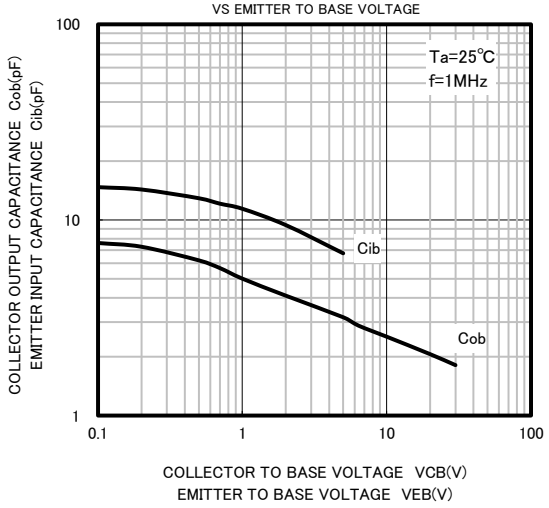
COMMON EMITTER TRANSFER



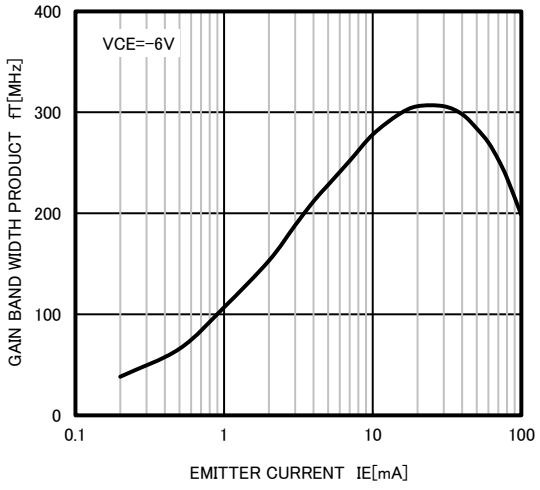
COMMON EMITTER TRANSFER



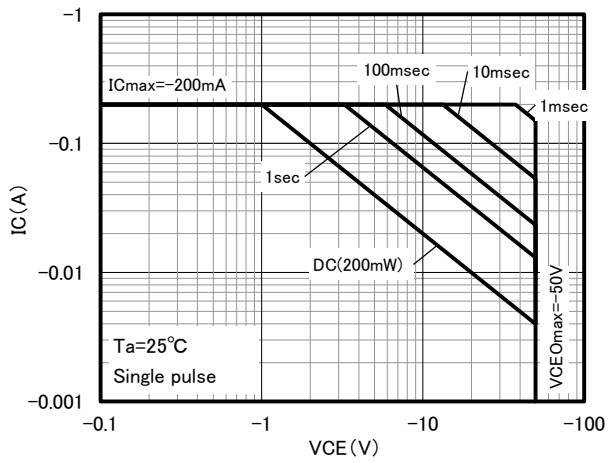
COLLECTOR OUTPUT CAPACITANCE
VS COLLECTOR TO BASE VOLTAGE
EMITTER INPUT CAPACITANCE
VS EMITTER TO BASE VOLTAGE



GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



ASO



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