

ISA1530AC1 ISA1603AM1

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FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

ISA1530AC1 ISA1603AM1 is super mini package resin sealed silicon PNP epitaxial type transistor.

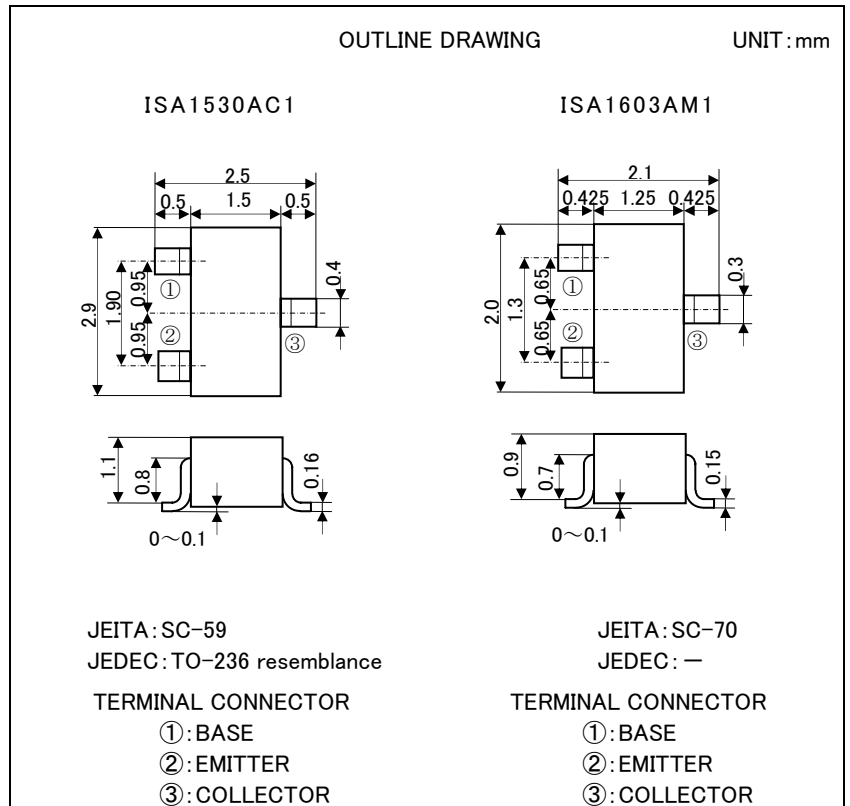
These are designed for low frequency voltage amplify application .

FEATURE

- Excellent linearity of DC forward current gain.
- Small collector to emitter saturation voltage
 $V_{CE(sat)} = -0.3V_{max}$

APPLICATION

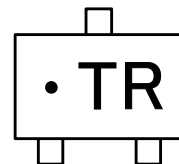
For small type machine low frequency voltage amplify application.



MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings		UNIT
		ISA1530AC1	ISA1603AM1	
V_{CBO}	Collector to Base voltage	-60		V
V_{EBO}	Collector to Emitter voltage	-6		V
V_{CEO}	Emitter to Base voltage	-50		V
I_C	Collector current	-150		mA
P_C	Collector dissipation	200		mW
T_j	Junction temperature	+150		°C
T_{stg}	Storage temperature	-55~+150		°C

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Test conditions	Limits			UNIT
			Min	Ave	Max	
$V_{(BR)CEO}$	Collector to Emitter Breakdown voltage	$I_C = -100 \mu A, R_{BE} = \infty$	-50			V
I_{CBO}	Collector cut off current	$V_{CB} = -60V, I_E = 0$			-0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB} = -4V, I_C = 0$			-0.1	μA
h_{FE}^*	DC forward current gain	$V_{CE} = -6V, I_C = -1mA$	120		560	-
h_{FE}	DC forward current gain	$V_{CE} = -6V, I_C = -0.1mA$	70			-
$V_{CE(sat)}$	Collector to Emitter saturation voltage	$I_C = -100mA, I_B = -10mA$			-0.3	V
f_T	Gain bandwidth product	$V_{CE} = -6V, I_E = 10mA$		200		MHz
C_{ob}	Collector output capacitance	$V_{CB} = -6V, I_E = 0, f = 1MHz$		4.0		pF
NF	Noise figure	$V_{CE} = -6V, I_E = 0.3mA, f = 100Hz, RG = 10k \Omega$			20	dB

*:It shows hFE classification in below table.

	Q	R	S
hFE	120~270	180~390	270~560

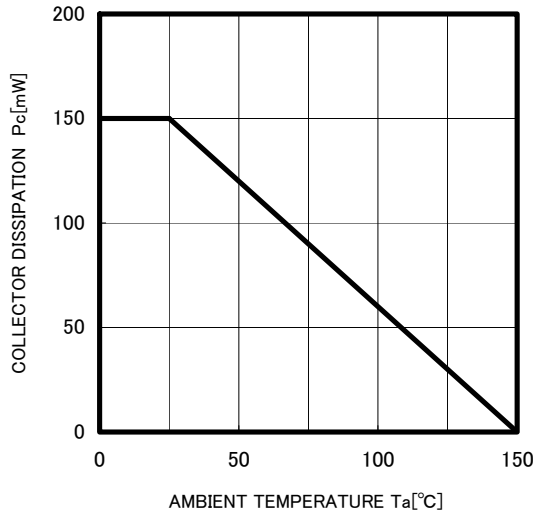
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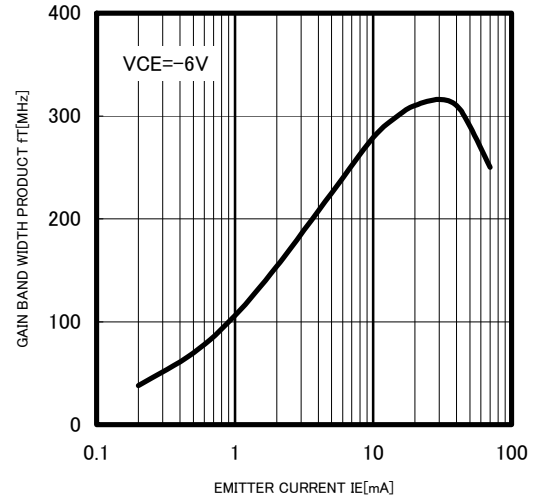
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TYPICAL CHARACTERISTICS

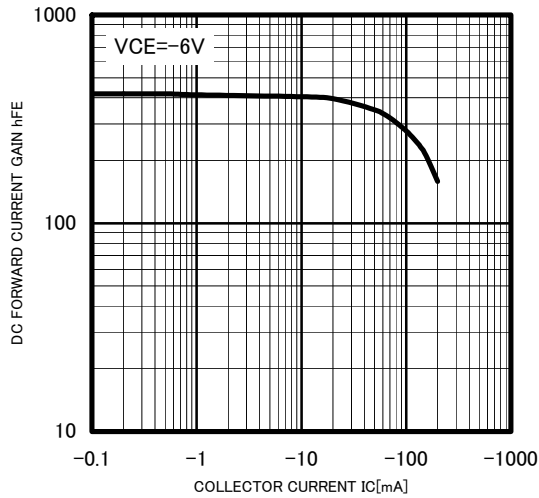
COLLECTOR DISSIPATION VS AMBIENT TEMPERATURE



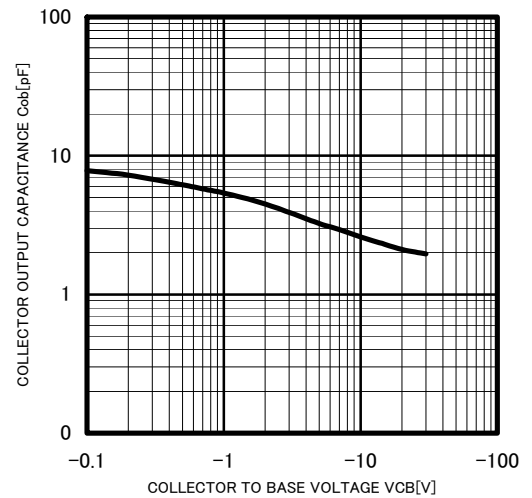
GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



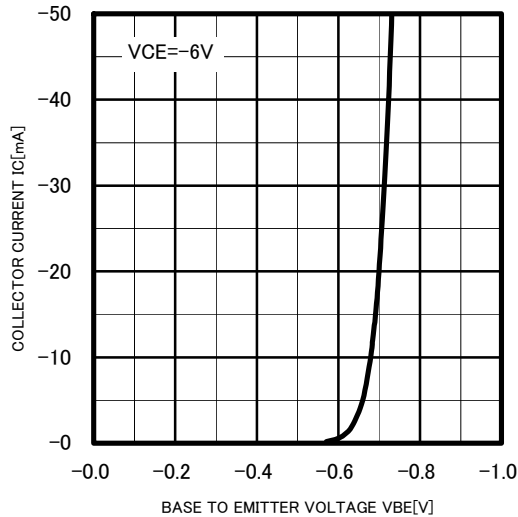
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



COMMON EMITTER TRANSFER





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