

ISA1235AC1 ISA1602AM1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

ISA1235AC1 ISA1602AM1 is super mini package resin sealed silicon PNP epitaxial type transistor.

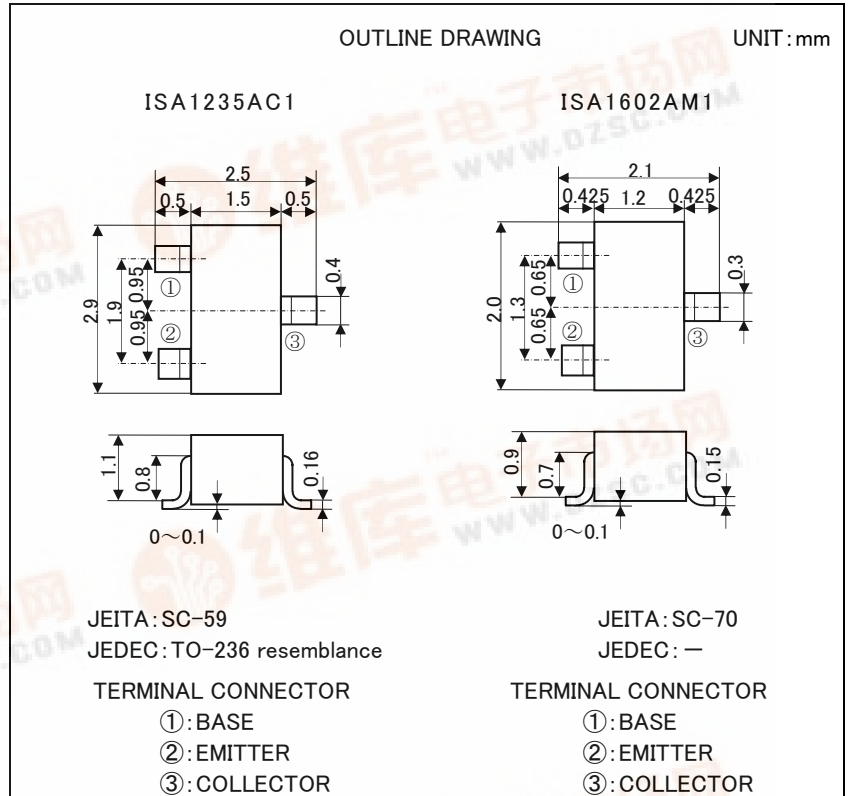
These are designed for low frequency voltage amplify application .

FEATURE

- Excellent linearity of DC forward current gain.
- Small collector to emitter saturation voltage
VCE(sat)=-0.3Vmax

APPLICATION

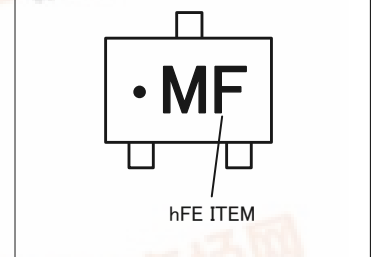
For small type machine low frequency voltage amplify application.



MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings		UNIT
		ISA1235AC1	ISA1602AM1	
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	-200		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 μA, R _{BE} = ∞	-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} = -6V, I _C = 0			-0.1	μA
h _{FE} *	DC forward current gain	V _{CE} = -6V, I _C = -1mA	150		500	—
h _{FE}	DC forward current gain	V _{CE} = -6V, I _C = -0.1mA	90			—
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
Cob	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, R _G = 10kΩ			20	dB

*It shows hFE classification in below table.

	E	F
hFE	150~300	250~500

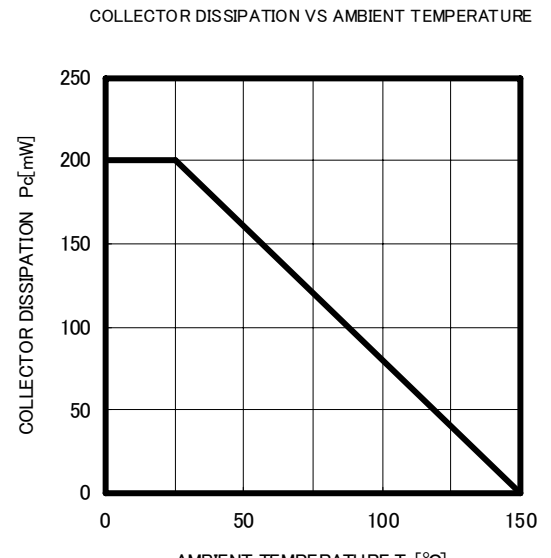
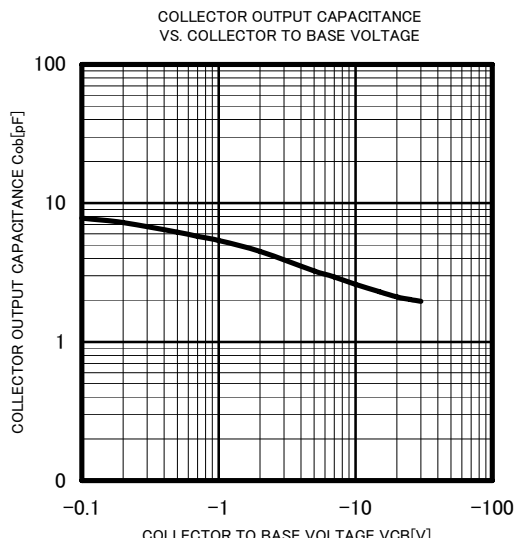
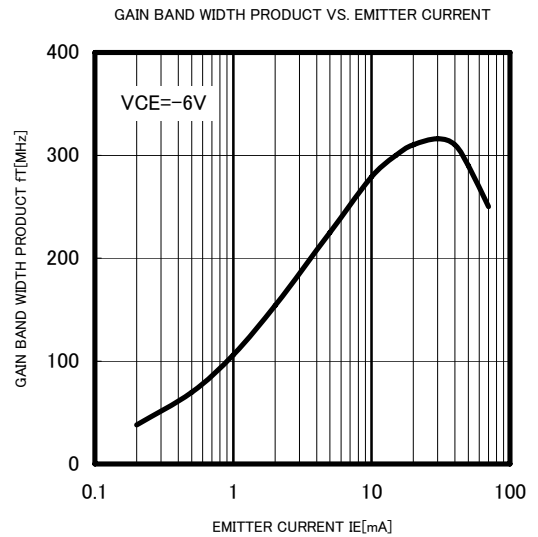
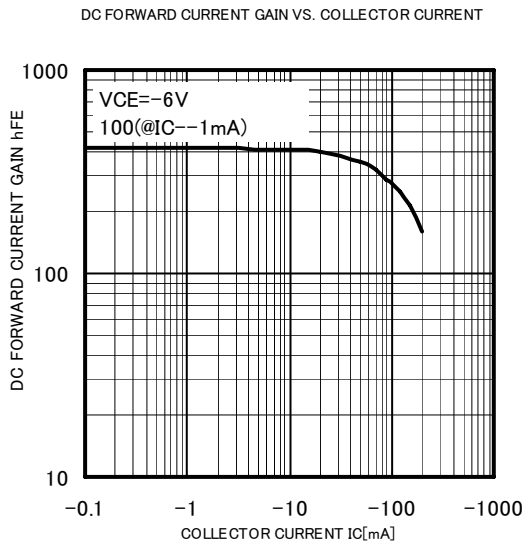
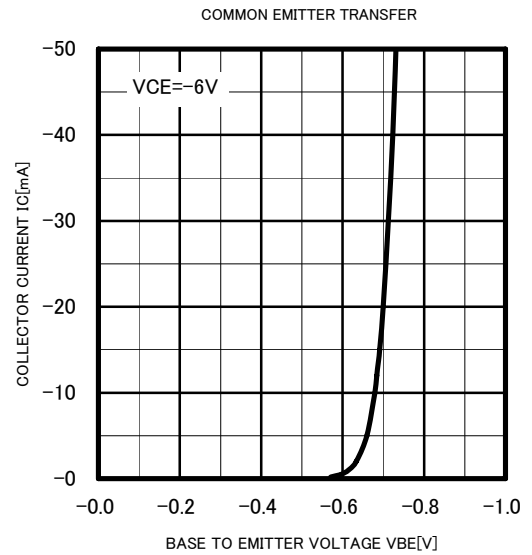
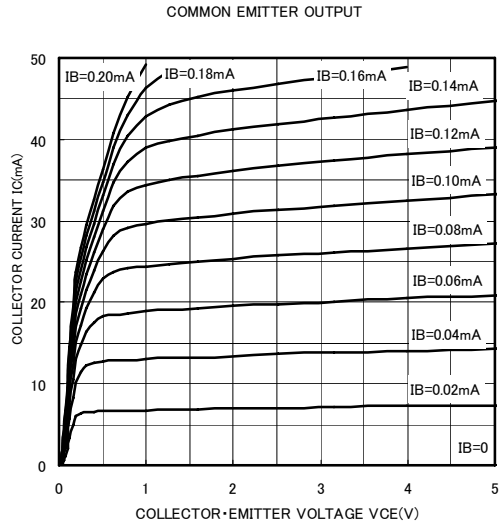


〈SMALL-SIGNAL TRANSISTOR〉

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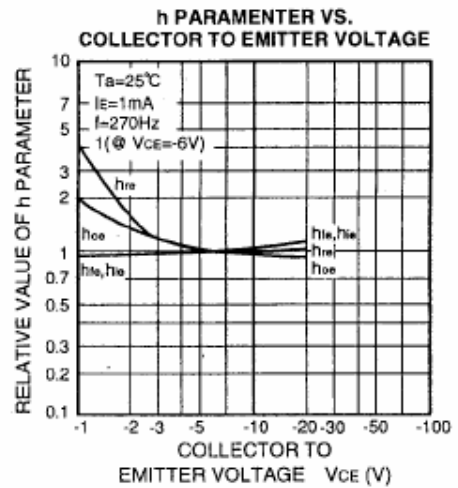
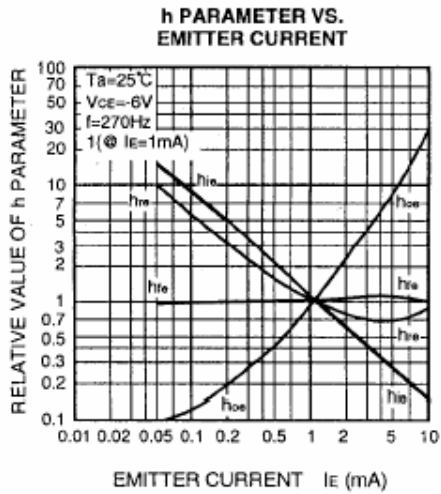
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TYPICAL CHARACTERISTICS



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COMMON EMITTER h PARAMETER (TYPICAL VALUE)

Symbol	Parameter	Test conditions	Limits	Unit
h_{ie}	Closed loop small signal input impedance	$T_a=25^\circ\text{C}$ $V_{CE}=-6\text{V}$ $I_E=1\text{mA}$ $f=270\text{Hz}$	7.0	$k\Omega$
h_{re}	Open loop small signal reverse voltage amplification factor		0.1	$\times 10^{-3}$
h_{fe}	Closed loop small signal forward current amplification factor		250	—
h_{oe}	Open loop small signal output admittance		18	μS



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