

DESCRIPTION

2SA1235 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.
VCE(sat)=-0.3V max(@Ic=-100mA,IB=-10mA)
- Excellent linearity of DC forward gain.
- Super mini package for easy mounting

APPLICATION

For Hybrid IC,small type machine low frequency voltage Amplify application.

MAXIMUM RATINGS (Ta=25°C)

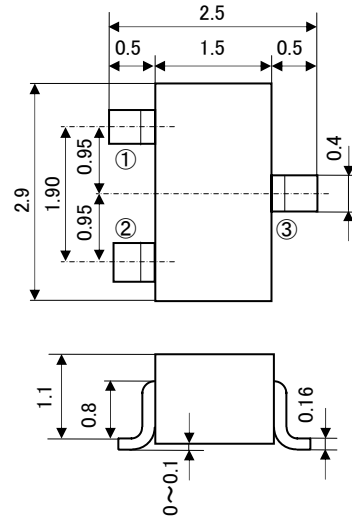
Symbol	Parameter	Ratings	Unit
V _{CBO}	Collector to Base voltage	-50	V
V _{CEO}	Collector to Emitter voltage	-50	V
V _{EBO}	Emitter to Base voltage	-6	V
I _O	Collector current	-200	mA
P _c	Collector dissipation	200	mW
T _j	Junction temperature	+150	°C
T _{stg}	Storage temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E break down voltage	V(BR) _{CEO}	I _C =-100 μA, R _{BE} =∞	-50	-	-	V
Collector cut off current	ICBO	V _{CB} =-50V, I _E =0mA	-	-	-0.1	μA
Emitter cut off current	IEBO	V _{EB} =-6V, I _C =0mA	-	-	-0.1	μA
DC forward current gain	hFE	V _{CE} =-6V, I _C =-1mA ※	150	-	800	
DC forward current gain	hFE	V _{CE} =-6V, I _C =-0.1mA	90	-	-	
C to E Saturation Voltage	VCE(sat)	I _C =-100mA, I _B =-10mA	-	-	-0.3	V
Gain bandwidth product	fT	V _{CE} =-6V, I _E =10mA	-	200	-	MHz
Collector output capacitance	Cob	V _{CB} =-6V, I _E =0, f=1MHz	-	4	-	pF
Noise figure	NF	V _{CE} =-6V, I _E =0.3mA, f=100Hz, RG=10k Ω	-	-	20	dB

OUTLINE DRAWING

Unit: mm



JEITA: SC-59

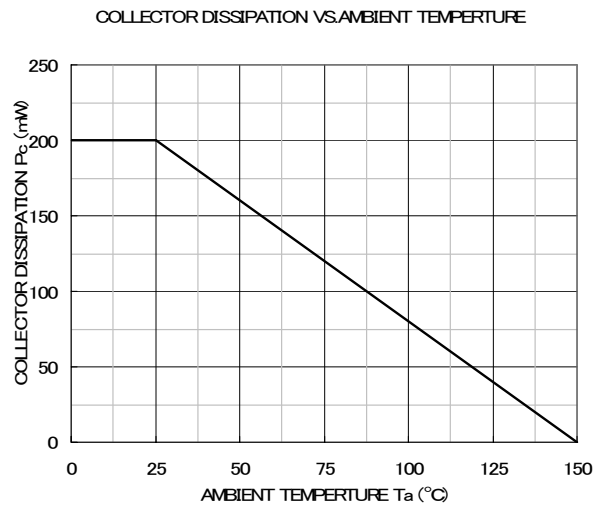
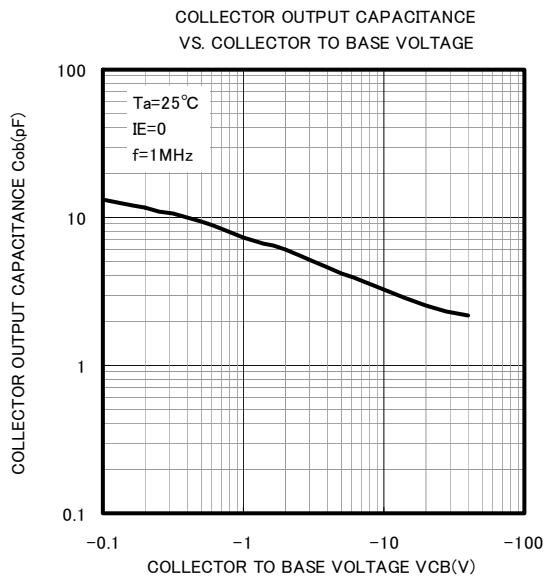
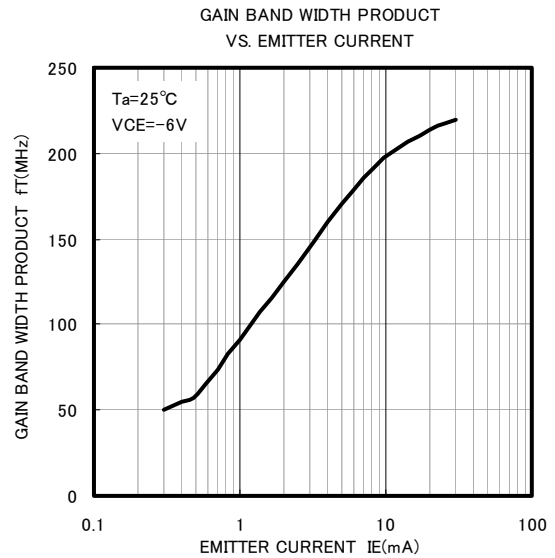
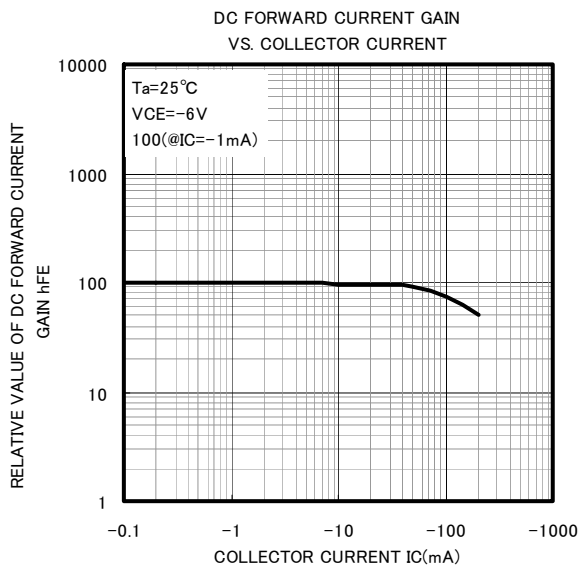
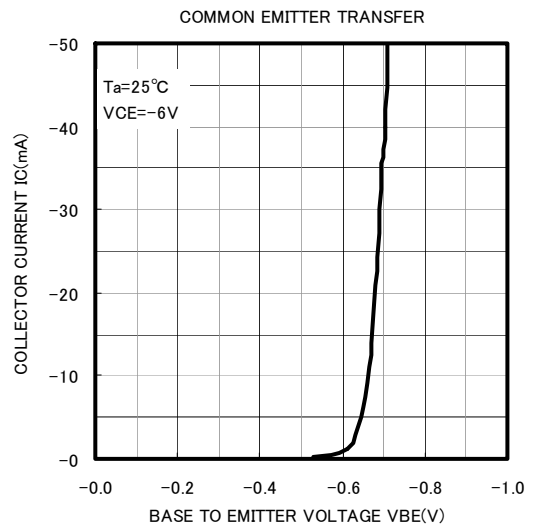
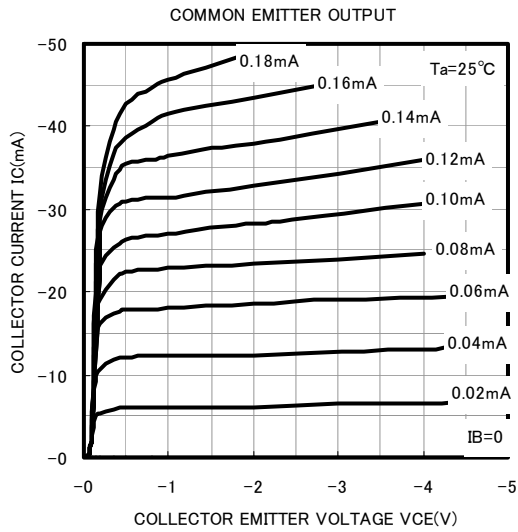
JEDEC: Similar to TO-236

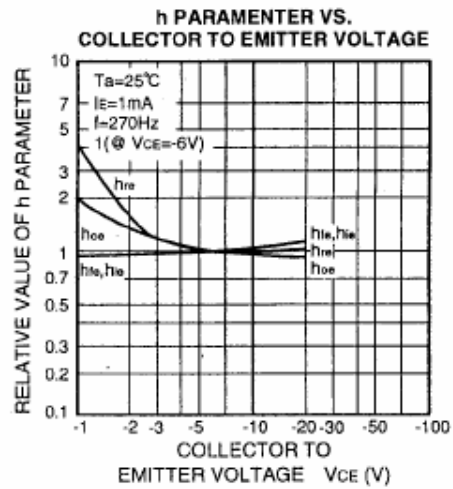
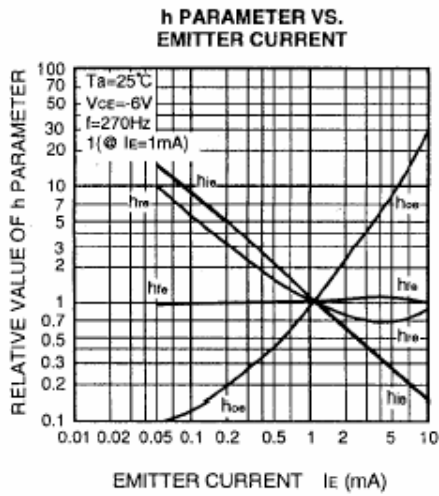
TERMINAL CONNECTER

- ①: BASE
- ②: EMITTER
- ③: COLLECTOR

※) It shows hFE classification in below table.

Item	E	F	G
hFE Item	150~300	250~500	400~800





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	$\text{k}\Omega$
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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