

DESCRIPTION

2SA1602 is a super mini package resin sealed silicon PNP epitaxial transistor, It is designed for low frequency voltage application.

FEATURE

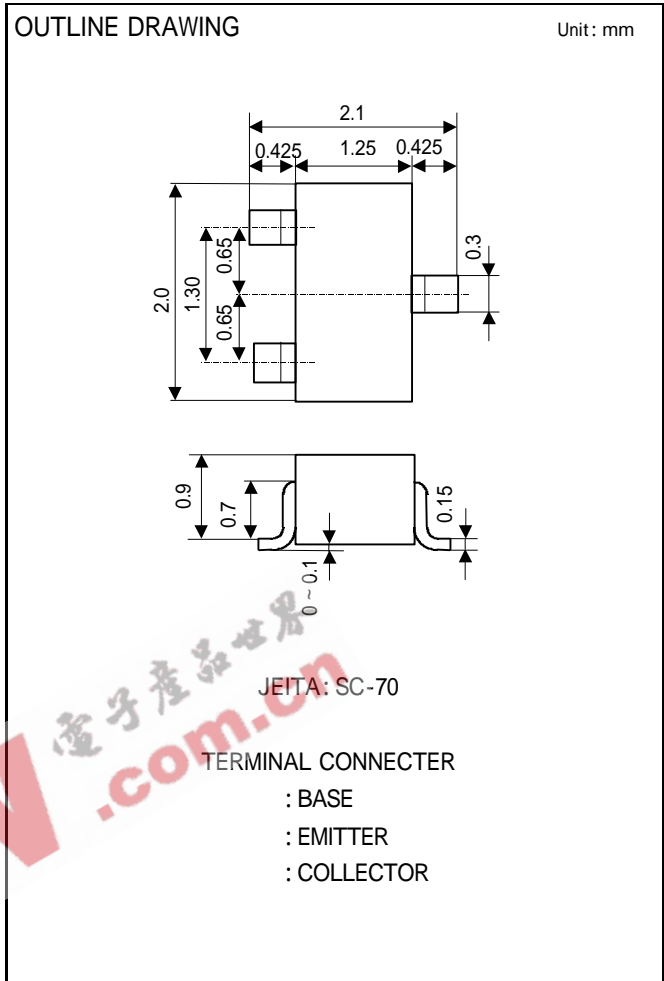
- Small collector to emitter saturation voltage.  
VCE(sat)=-0.3V max
- Excellent linearity of DC forward gain.
- Super mini package for easy mounting

APPLICATION

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

MAXIMUM RATINGS(Ta=25 )

Symbol	Parameter	Ratings	Unit
V <sub>CBO</sub>	Collector to Base voltage	-50	V
V <sub>CEO</sub>	Collector to Emitter voltage	-50	V
V <sub>EBO</sub>	Emitter to Base voltage	-6	V
I <sub>O</sub>	Collector current	-200	mA
P <sub>C</sub>	Collector dissipation	150	mW
T <sub>j</sub>	Junction temperature	+ 125	
T <sub>stg</sub>	Storage temperature	-55 ~ + 125	



ELECTRICAL CHARACTERISTICS(Ta=25 )

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E break down voltage	V(BR) <sub>CEO</sub>	I <sub>C</sub> =-100 μA, R <sub>BE</sub> =	-50	-	-	V
Collector cut off current	I <sub>CBO</sub>	V <sub>CB</sub> =-50V, I <sub>E</sub> =0mA	-	-	-0.1	μA
Emitter cut off current	I <sub>EBO</sub>	V <sub>EB</sub> =-6V, I <sub>C</sub> =0mA	-	-	-0.1	μA
DC forward current gain	hFE	V <sub>CE</sub> =-6V, I <sub>C</sub> =-1mA	150	-	800	
DC forward current gain	hFE	V <sub>CE</sub> =-6V, I <sub>C</sub> =-0.1mA	90	-	-	
C to E Saturation Voltage	VCE(sat)	I <sub>C</sub> =-100mA, I <sub>B</sub> =-10mA	-	-	-0.3	V
Gain bandwidth product	fT	V <sub>CE</sub> =-6V, I <sub>E</sub> =-10mA	-	200	-	MHz
Collector output capacitance	Cob	V <sub>CB</sub> =-6V, I <sub>E</sub> =0, f=1MHz	-	4.0	-	pF

) It shows hFE classification in below table.

Item	E	F	G
h F E Item	150-300	250-500	400-800

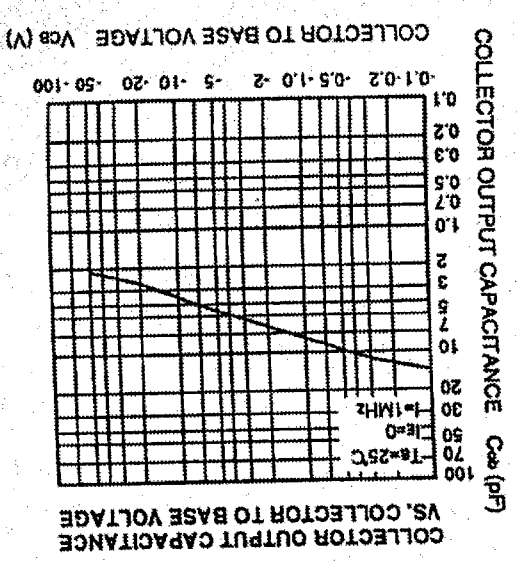
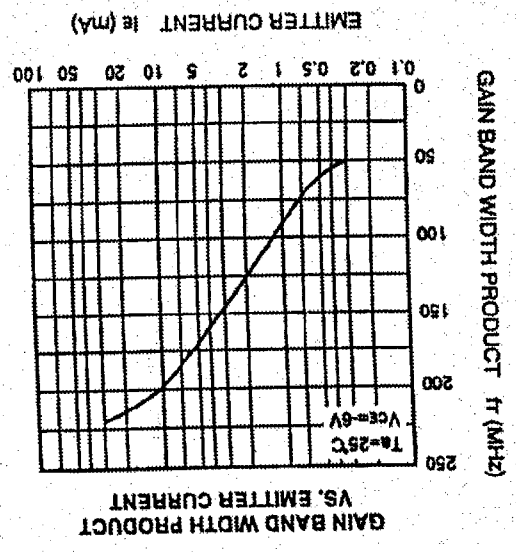
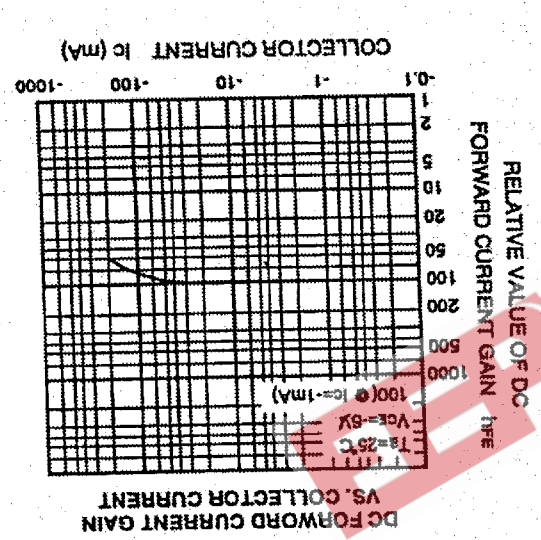
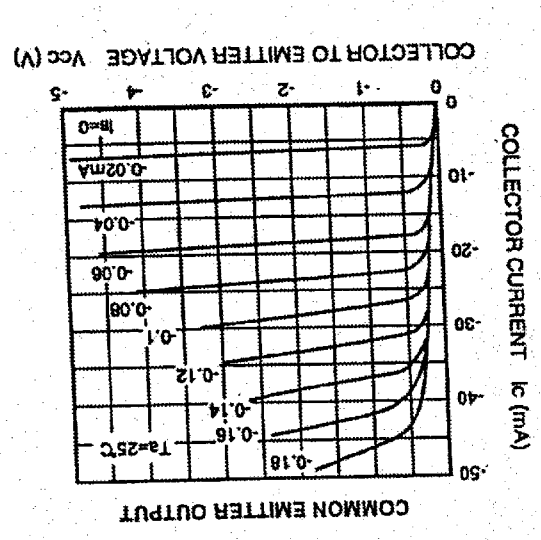
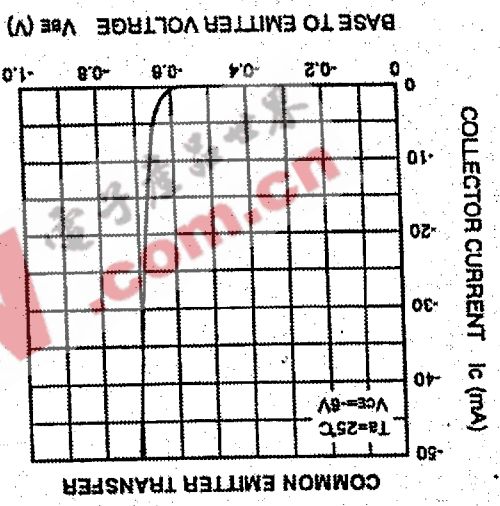
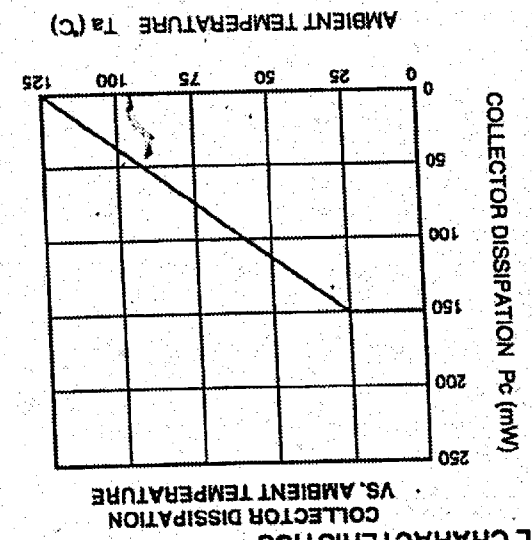
For Low Frequency Amplify Application  
Silicon PNP Epitaxial Type (Super Mini type)

# 2SA1602

(Transistor)

Semiconductor

## TYPICAL CHARACTERISTICS

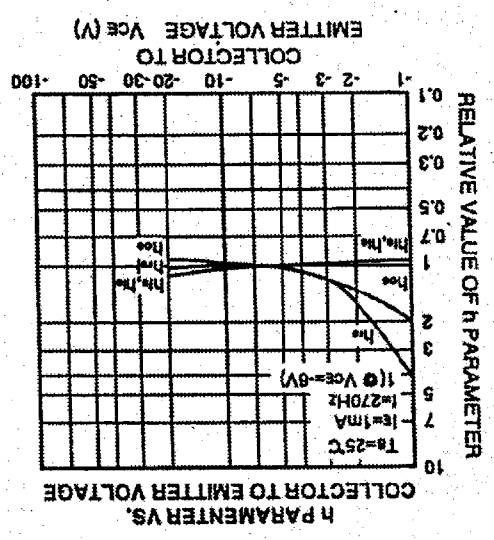
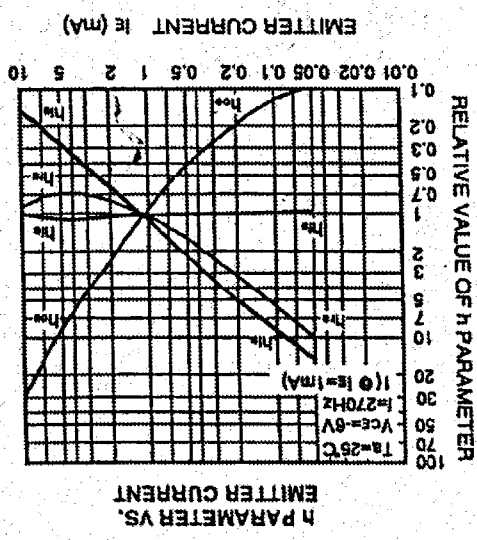


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## COMMON EMITTER h PARAMETER (TYPICAL VALUE)

Symbol	Parameter	Test conditions	Limits	Unit
$h_{ie}$	Closed loop small signal input impedance	$T_a = 25^\circ\text{C}$	7.0	k $\Omega$
$h_{re}$	Open loop small signal reverse voltage amplification factor	$V_{CE} = 8\text{V}$	0.1	$\times 10^{-3}$
$h_{fe}$	Closed loop small signal forward current amplification factor	$I_e = 1\text{mA}$	250	—
$h_{oe}$	Open loop small signal output admittance	$f = 270\text{Hz}$	18	#S

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