

DESCRIPTION

2SA1602A 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)

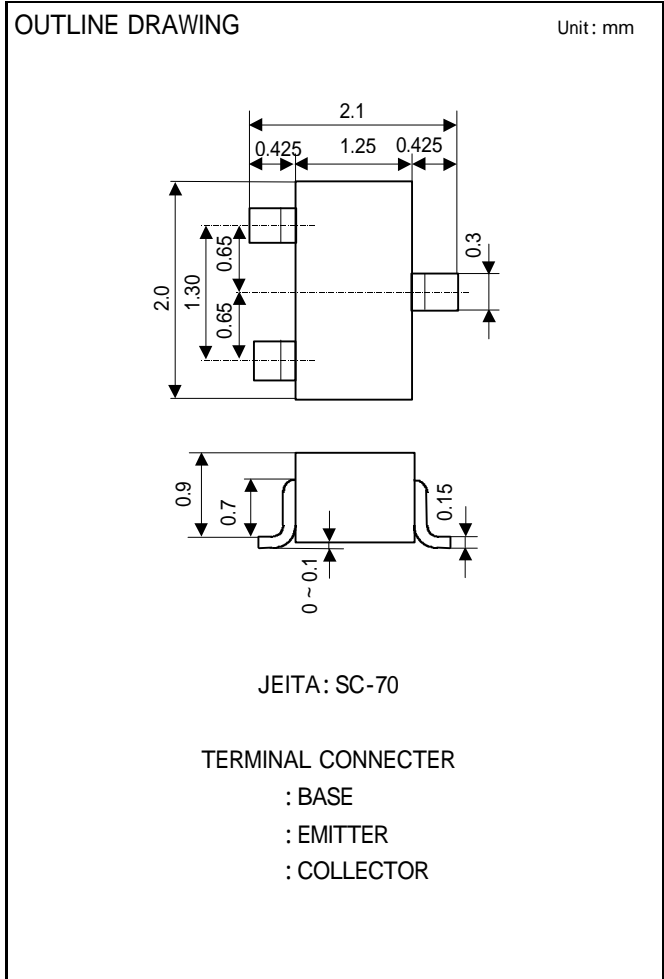
Symbol	Parameter	Ratings	Unit
V _{CBO}	Collector to Base voltage	-50	V
V _{CEO}	Collector to Emitter voltage	-50	V
V _{EBO}	Emitter to Base voltage	-6	V
I _O	Collector current	-200	mA
P _C	Collector dissipation	150	mW
T _j	Junction temperature	+ 125	
T _{stg}	Storage temperature	-55 ~ + 125	

ELECTRICAL CHARACTERISTICS(Ta=25)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E break down voltage	V(BR) _{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	-	500	
DC forward current gain	hFE	V _{CE} =-6V, I _C =-0.1mA	90	-	-	
C to E Saturation Vlotage	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	-	4.0	-	pF

) It shows hFE classification in below table.

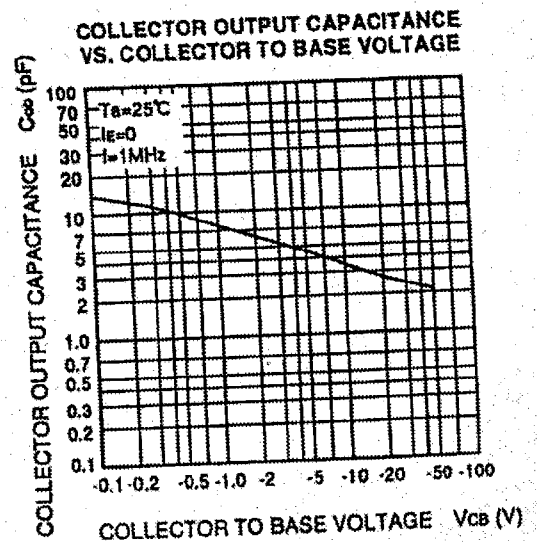
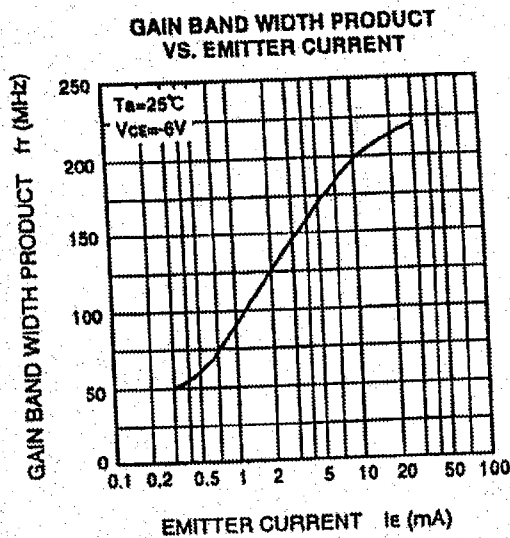
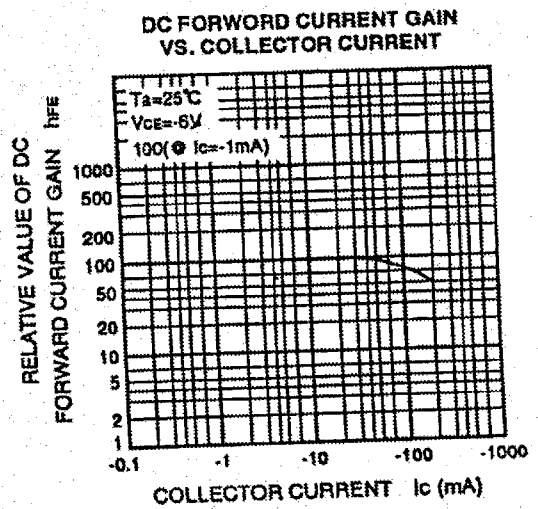
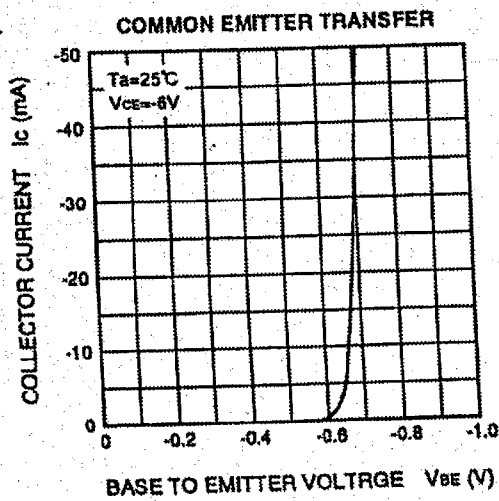
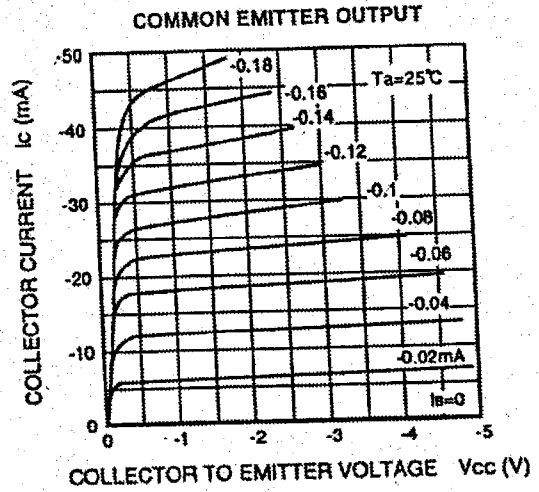
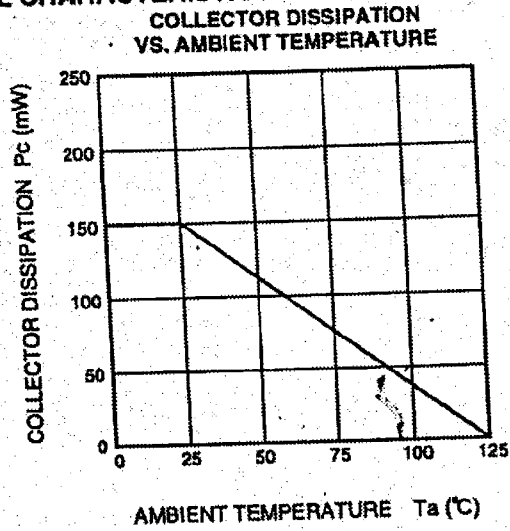
Item	E	F
h F E Item	150-300	250-500



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

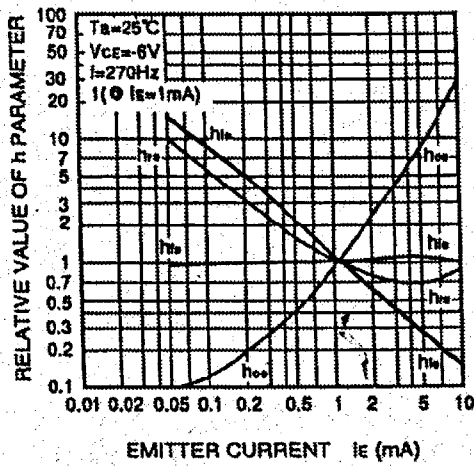
TYPICAL CHARACTERISTICS



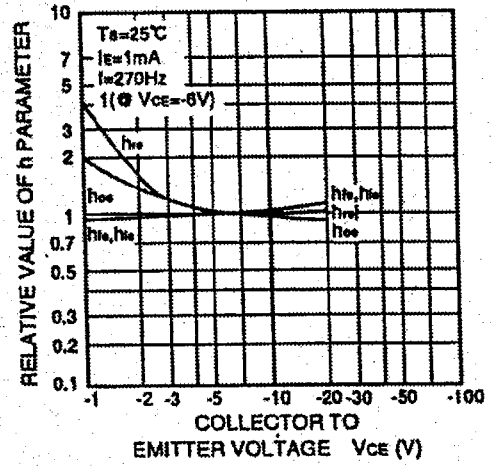
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**h PARAMETER VS.
EMITTER CURRENT**



**h PARAMETER VS.
COLLECTOR TO EMITTER VOLTAGE**



COMMON EMITTER h PARAMETER (TYPICAL VALUE)

Symbol	Parameter	Test conditions	Limits	Unit
h_{ie}	Closed loop small signal input impedance	$T_B=25^\circ\text{C}$ $V_{CE}=-6\text{V}$ $I_E=1\text{mA}$ $f=270\text{Hz}$	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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