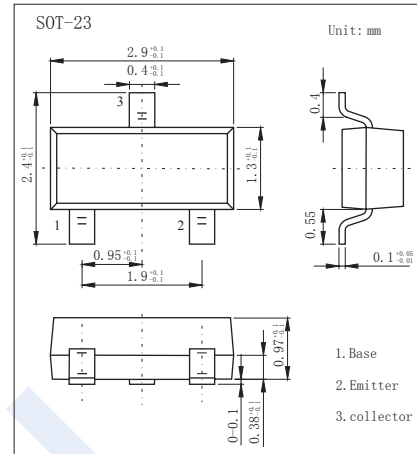


PNP Transistors

2SA1022-HF

■ Features

- High transition frequency fr.
- Complementary to 2SC2295-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	-30	V
Collector - Emitter Voltage	V _{CEO}	-20	
Emitter - Base Voltage	V _{EB0}	-5	
Collector Current - Continuous	I _C	-30	mA
Collector Power Dissipation	P _C	200	mW
Junction Temperature	T _J	150	°C
Storage Temperature range	T _{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = -100 μA, I _E =0	-30			V
Collector- emitter breakdown voltage	V _{CEO}	I _C = -1 mA, I _B =0	-20			
Emitter - base breakdown voltage	V _{EB0}	I _E = -100 μA, I _C =0	-5			
Collector-base cut-off current	I _{CBO}	V _{CB} = -30 V, I _E =0			-0.1	μA
Collector- emittercut-off current	I _{CEO}	V _{CE} = -20 V, I _E =0			-10	
Emitter cut-off current	I _{EBO}	V _{EB} = -5V, I _C =0			-0.1	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-10 mA, I _B =-1mA		-0.1		V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-10 mA, I _B =-1mA			-1.2	
Base - emitter voltage	V _{BE}	V _{CE} = -10 V, I _C =-1mA		-0.7		
DC current gain	h _{FE}	V _{CE} = -10 V, I _C =-1mA	70		220	
Reverse transfer impedance	R _{rb}	V _{CB} = -10V, I _E = 1mA, f = 2MHz		22		Ω
Noise figure	NF	V _{CB} = -10V, I _E = 1mA, f = 5MHz		2.8		dB
Common emitter reverse transfer capacitance	C _{re}	V _{CE} = -10V, I _C = -1mA,f=10.7MHz		1.2		pF
Transition frequency	f _T	V _{CB} = -10V, I _E = 1mA,f=200MHz	150	300		MHz

■ Classification of h_{FE}

Type	2SA1022-B-HF	2SA1022-C-HF
Range	70-140	110-220
Marking	EB _F	EC _F

PNP Transistors

2SA1022-HF

■ Typical Characteristics

