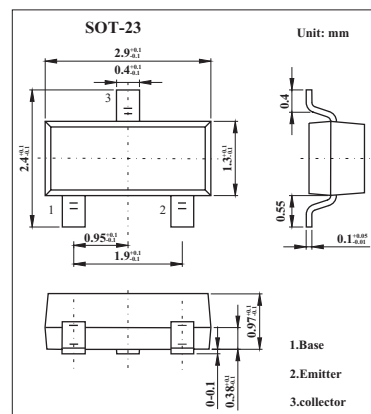


PNP Epitaxial Planar Silicon Transistors

2SA1256

■ Features

- High f_T (230MHz typ), and small C_{re} (1.1pF typ).
- Small NF (2.5dB typ).

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-30	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-30	mA
Collector dissipation	P_C	150	W
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -10V, I_E = 0$			-0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
DC current Gain	h_{FE}	$V_{CE} = -6V, I_C = -1\text{mA}$	60		270	
Gain bandwidth product	f_T	$V_{CE} = -6V, I_C = -1\text{mA}$	150	230		MHz
Reverse transfer capacitance	C_{re}	$V_{CB} = -6V, f = 1\text{MHz}$		1.1	1.7	pF
Base-collector time constant	r_{bb}, C_c	$V_{CE} = -6V, I_C = -1\text{mA}, f = 31.9\text{MHz}$		11	20	ps
Noise figure	NF	$V_{CE} = -6V, I_C = -1\text{mA}, f = 100\text{MHz}$		2.5		dB
Voltage gain	PG	$V_{CE} = -6V, I_C = -1\text{mA}, f = 100\text{MHz}$		22		dB

■ h_{FE} Classification

Marking	E3	E4	E5
h_{FE}	60~120	90~180	135~180