

NPN Silicon Epitaxial Transistor

2SC4226

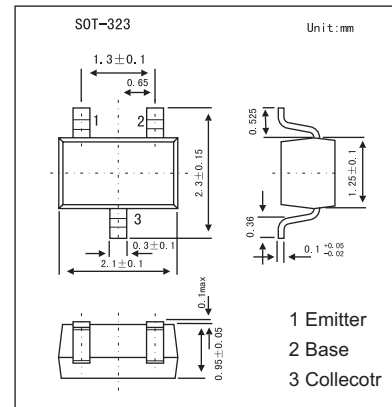
■ Features

- Low noise and high gain.

NF = 1.2 dB Typ. @V_{CE} = 3V, I_c = 7 mA, f = 1.0 GHz

- High gain.

|S_{21e}|² = 9.0 dB TYP. @ f = 1 GHz, V_{CE} = 3 V, I_c = 7 mA



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to base voltage	V _{CB0}	20	V
Collector to emitter voltage	V _{CEO}	12	V
Emitter to base voltage	V _{EB0}	3.0	V
Collector current (DC)	I _c	100	mA
power dissipation	P _c	150	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-65 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I _{CB0}	V _{CB} = 10 V, I _E = 0			1.0	μA
Emitter cutoff current	I _{EB0}	V _{EB} = 1.0 V, I _c = 0			1.0	μA
DC current gain *	h _{FE}	V _{CE} = 3V, I _c = 7 mA	40	110	250	
Insertion power gain	S _{21e} ²	V _{CE} = 3V, I _c = 7 mA, f = 1 GHz	7	9		dB
Noise figure	NF	V _{CE} = 3 V, I _c = 7 mA, f = 1 GHz		1.2	2.5	dB
Reverse transfer capacitance	C _{re}	V _{CB} = 3 V, I _E = 0, f = 1 MHz		0.7	1.5	pF
Transition frequency	f _r	V _{CE} = 3V, I _c = 7 mA	3.0	4.5		GHz

*. Pulse measurement: PW ≤ 350 μs, Duty Cycle ≤ 2%.

■ hFE Classification

Marking	R23	R24	R25
Rank	R23	R24	R25
hFE	40~80	70~140	125~250