

DATA SHEET

NEC

SILICON TRANSISTOR 2SC4226

HIGH FREQUENCY LOW NOISE AMPLIFIER NPN SILICON EPITAXIAL TRANSISTOR SUPER MINI MOLD

DESCRIPTION

The 2SC4226 is a low supply voltage transistor designed for VHF, UHF low noise amplifier.

It is suitable for a high density surface mount assembly since the transistor has been applied small mini mold package.

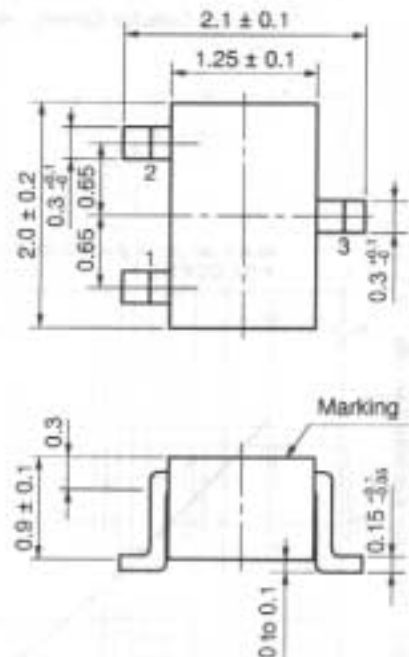
FEATURES

- Low Noise
NF = 1.2 dB TYP. @ $f = 1$ GHz, $V_{CE} = 3$ V, $I_C = 7$ mA
- High Gain
 $IS_{21dB}^2 = 9.0$ dB TYP. @ $f = 1$ GHz, $V_{CE} = 3$ V, $I_C = 7$ mA
- Small Mini Mold Package
EIAJ: SC-70

ORDERING INFORMATION

PART NUMBER	QUANTITY	PACKING STYLE
2SC4226-T1	3 Kpcs/Reel.	Embossed tape 8 mm wide. Pin3 (Collector)face to perforation side of the tape.
2SC4226-T2	3 Kpcs/Reel.	Embossed tape 8 mm wide. Pin1 (Emitter), Pin2 (Base) face to perforation side of the tape.

PACKAGE DIMENSIONS in millimeters



PIN CONNECTIONS

1. Emitter
2. Base
3. Collector

- Please contact with responsible NEC person, if you require evaluation sample. Unit sample quantity shall be 50 pcs. (Part No.: 2SC4226)

ABSOLUTE MAXIMUM RATINGS (TA = 25 °C)

Collector to Base Voltage	V _{CB0}	20
Collector to Emitter Voltage	V _{CE0}	12
Emitter to Base Voltage	V _{EB0}	3
Collector Current	I _c	100
Total Power Dissipation	P _T	150
Junction Temperature	T _j	150
Storage Temperature	T _{stg}	-65 to +150

TYPICAL CHARACTERISTICS (TA = 25 °C)



ELECTRICAL CHARACTERISTICS (TA = 25 °C)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Collector Cutoff Current	I _{ce0}			1.0	μA	V _{CE} = 10 V, I _b = 0
Emitter Cutoff Current	I _{ee0}			1.0	μA	V _{EB} = 1 V, I _c = 0
DC Current Gain	h _{FE}	40	110	250		V _{CE} = 3 V, I _c = 7 mA*1
Gain Bandwidth Product	f _r	3.0	4.5		GHz	V _{CE} = 3 V, I _c = 7 mA
Feed back Capacitance	C _{re}		0.7	1.5	pF	V _{CE} = 3 V, I _b = 0, f = 1 MHz*2
Insertion Power Gain	S ₂₁ ²	7	9		dB	V _{CE} = 3 V, I _c = 7 mA, f = 1 GHz
Noise Figure	NF		1.2	2.5	dB	V _{CE} = 3 V, I _c = 7 mA, f = 1 GHz

*1 Pulse Measurement ; PW ≤ 350 μs, Duty Cycle ≤ 2 % Pulsed.

*2 Measured with 3 terminals bridge, Emitter and Case should be grounded.

h_{FE} Classification

Rank	R23	R24	R25
Marking	R23	R24	R25
h _{FE}	40 to 80	70 to 140	125 to 250