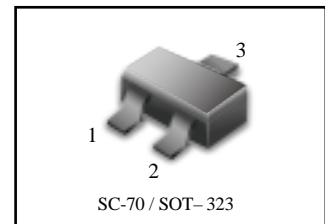
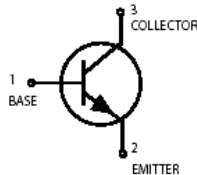


High-Frequency Amplifier Transistor



DESCRIPTION

The FTC4226 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. We declare that the material of product compliance with RoHS requirements.

FEATURES

- Low Noise
NF = 1.2 dB TYP. @ f = 1 GHz, V_{CE} = 3 V, I_c = 7 mA
- High Gain
|S₂₁|² = 9.0 dB TYP. @ f = 1 GHz, V_{CE} = 3 V, I_c = 7 mA
- Small Mini Mold Package
EIAJ: SC-70

Driver Marking

FTC4226 = R2

Ordering Information

Device	Marking	Shipping
FTC4226	R2	3000/Tape&Reel

ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C)

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

ELECTRICAL CHARACTERISTICS (T_A = 25 °C)

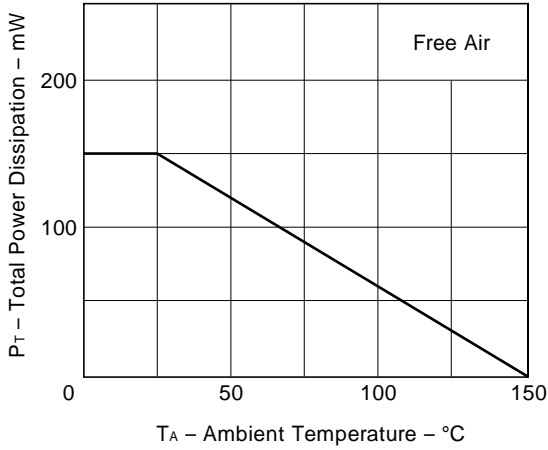
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Collector Cutoff Current	I _{cBO}			1.0	μA	V _{CB} = 10 V, I _E = 0
Emitter Cutoff Current	I _{EBO}			1.0	μA	V _{EB} = 1 V, I _C = 0
DC Current Gain	h _{FE}	40	110	250		V _{CE} = 3 V, I _C = 7 mA * ¹
Gain Bandwidth Product	f _r	3.0	4.5		GHz	V _{CE} = 3 V, I _C = 7 mA
Feed back Capacitance	C _{re}		0.7	1.5	pF	V _{CE} = 3 V, I _E = 0, f = 1 MHz * ²
Insertion Power Gain	S _{21e} 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.

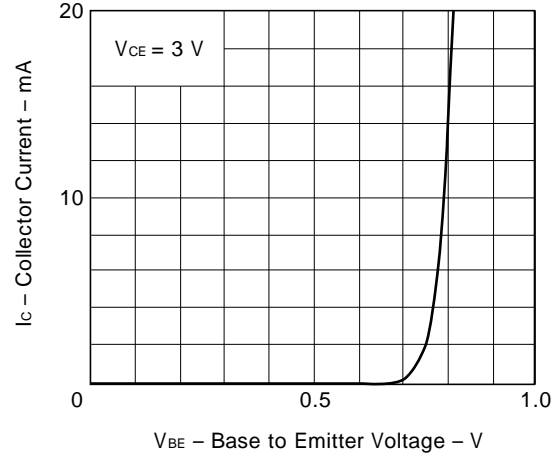
*2 Measured with 3 terminals bridge, Emitter and Case should be grounded.

TYPICAL CHARACTERISTICS (T_A = 25 °C)

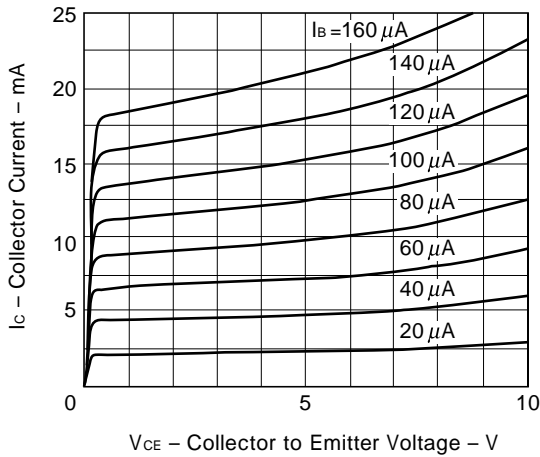
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



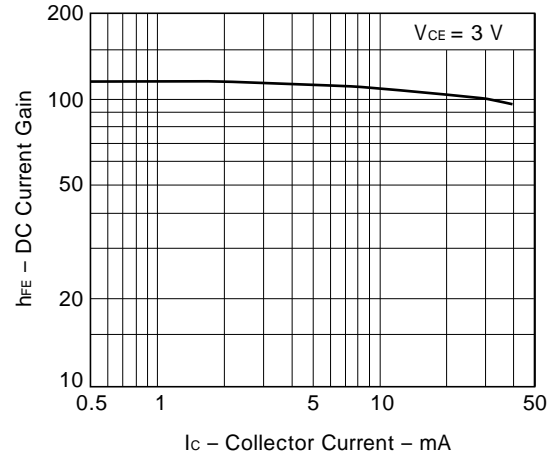
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



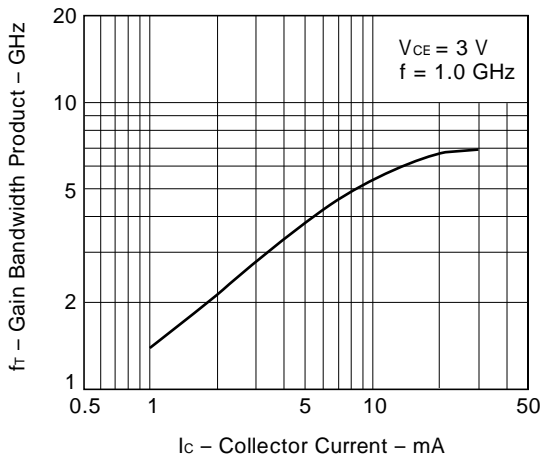
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



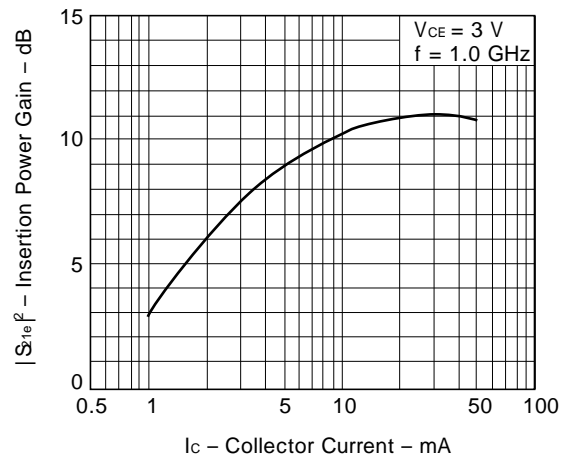
DC CURRENT GAIN vs. COLLECTOR CURRENT



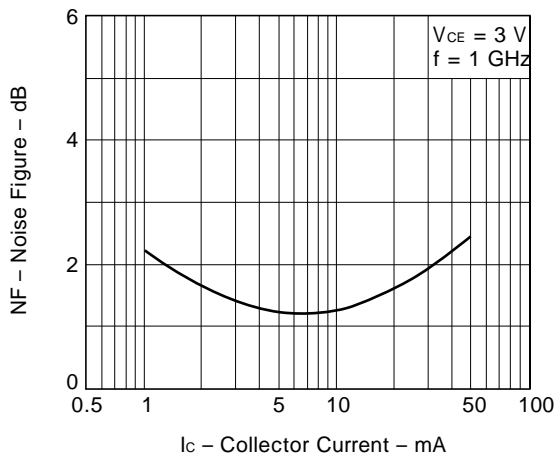
GAIN BANDWIDTH PRODUCT vs. COLLECTOR CURRENT



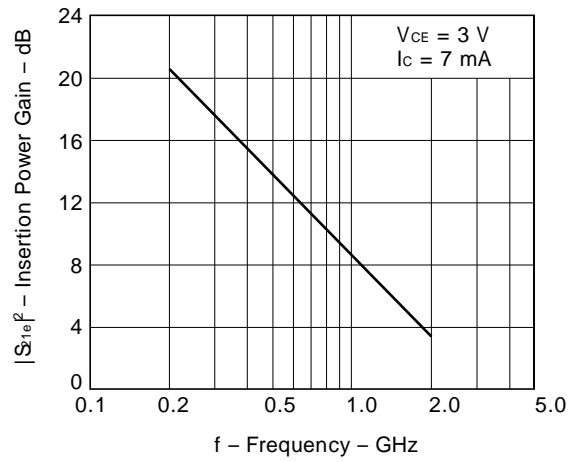
INSERTION POWER GAIN vs. COLLECTOR CURRENT



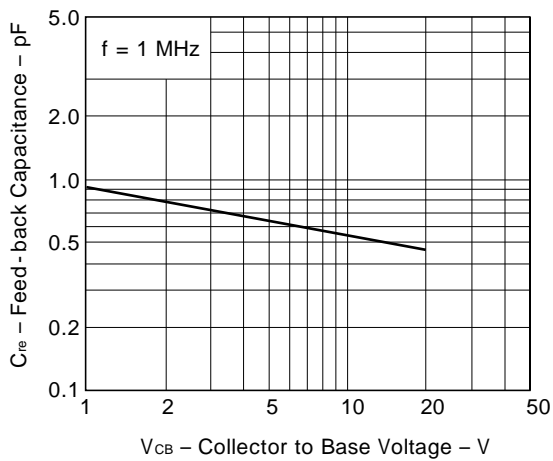
NOISE FIGURE vs.
COLLECTOR CURRENT



INSERTION POWER GAIN vs. FREQUENCY



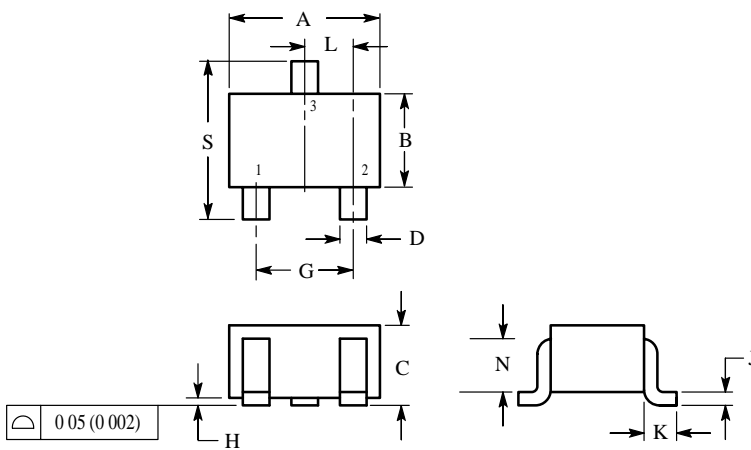
FEED-BACK CAPACITANCE vs.
COLLECTOR TO BASE VOLTAGE



SC-70 / SOT-323

NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.032	0.040	0.80	1.00
D	0.012	0.016	0.30	0.40
G	0.047	0.055	1.20	1.40
H	0.000	0.004	0.00	0.10
J	0.004	0.010	0.10	0.25
K	0.017 REF		0.425 REF	
L	0.026 BSC		0.650 BSC	
N	0.028 REF		0.700 REF	
S	0.079	0.095	2.00	2.40

