Elektronische Bauelemente

2SC4226

0.1A , 20V

NPN Silicon Epitaxial Planar Transistor

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

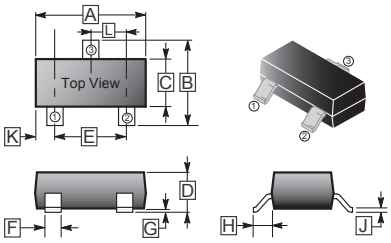
FEATURE

- Low noise
- High gain
- Power dissipation.(P_C=150mW)

APPLICATIONS

- High frequency low noise amplifier.

SOT-323



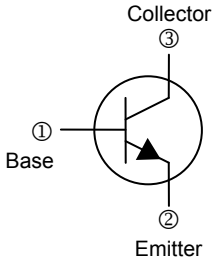
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.100 REF.	
B	1.80	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.08	0.25
D	0.80	1.10	K	-	-
E	1.20	1.40	L	0.650 TYP.	
F	0.20	0.40			

CLASSIFICATION OF h_{FE}

Product-Rank	2SC4226-P	2SC4226-Q	2SC4226-R
Range	40~80	70~140	125~250
Marking	r23	r24	r25

PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-323	3K	7' inch



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	20	V
Collector to Emitter Voltage	V_{CEO}	12	V
Emitter to Base Voltage	V_{EBO}	3	V
Collector Current – Continuous	I_C	100	mA
Collector Power Dissipation	P_C	150	mW
Junction, Storage Temperature	T_J, T_{STG}	+150, -65 ~ +150	℃

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Testing Condition
Collector-base breakdown voltage	$V_{(BR)CBO}$	20	-	-	V	I_C=100μA, I_E=0
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	12	-	-	V	I_C=1mA, I_B=0
Emitter-base breakdown voltage	$V_{(BR)EBO}$	3	-	-	V	I_E=100μA, I_C=0
Collector Cut-off Current	I_{CBO}	-	-	1	μA	V_{CB}=10V, I_E=0
Emitter Cut-off Current	I_{EBO}	-	-	1	μA	V_{EB}=1V, I_C=0
DC Current Gain	h_{FE}	40	110	250		V_{CE}=3V, I_C=7mA
Transition Frequency	f_T	3.0	4.5	-	GHz	V_{CE}=3V, I_E=7mA
Feed Back Capacitance	C_{re}	-	0.7	1.5	pF	V_{CE}=3V, I_E=0, f=1MHz
Noise Figure	NF	-	1.2	2.5	dB	V_{CE}=3V, I_C=7mA, f=1GHz

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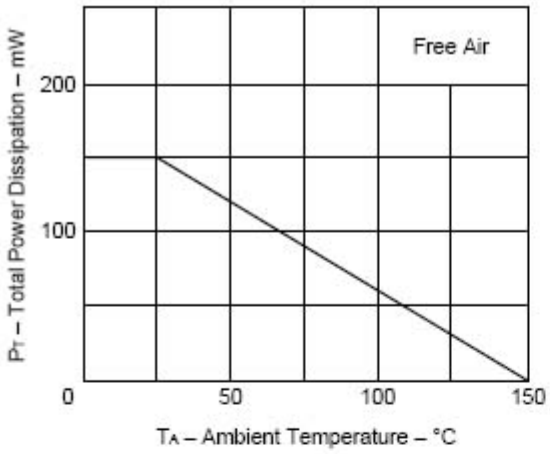
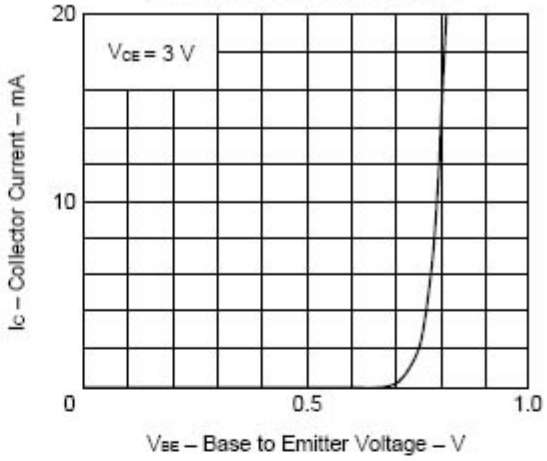
CHARACTERISTIC CURVES

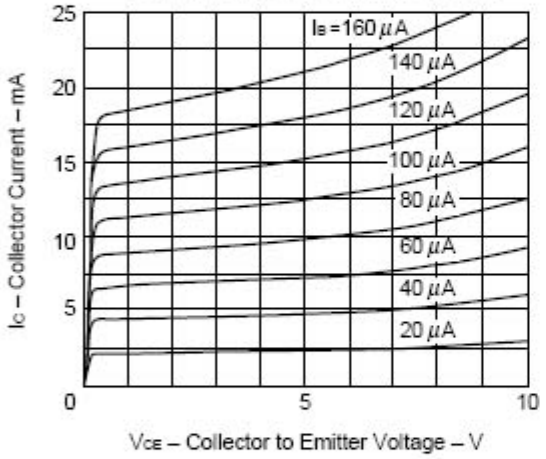
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



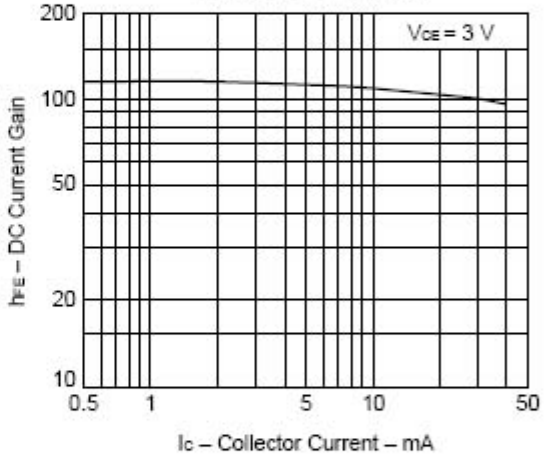
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



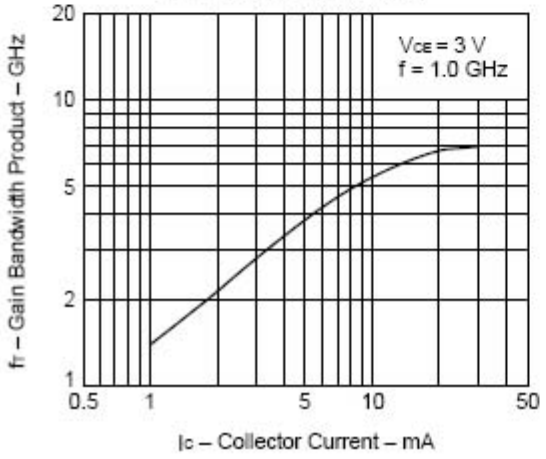
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



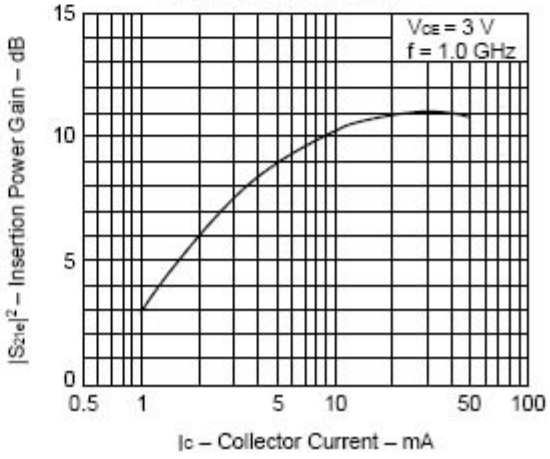
DC CURRENT GAIN vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. COLLECTOR CURRENT



INSERTION POWER GAIN vs. COLLECTOR CURRENT



CHARACTERISTIC CURVES