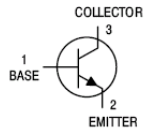
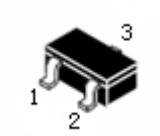
2SC4226

NPN Silicon Epitaxial Planar Transistor

FEATURES

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





SOT-323

APPLICATIONS

- High frequency low noise amplifier.

ORDERING INFORMATION

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current -Continuous	100	mA
P_C	Collector Dissipation	150	mW
T_j,T_{stg}	Junction and Storage Temperature	-65 to +150	℃

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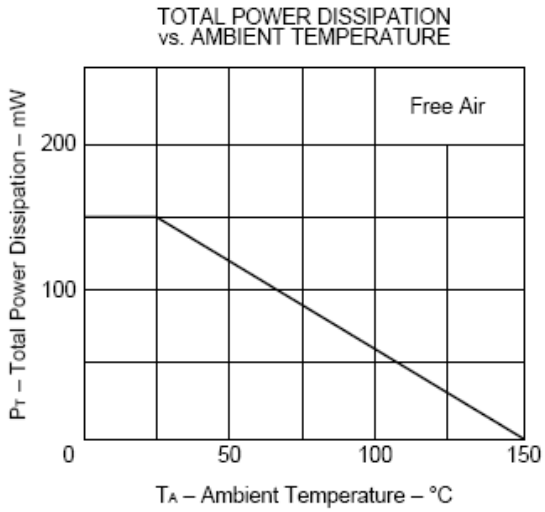
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

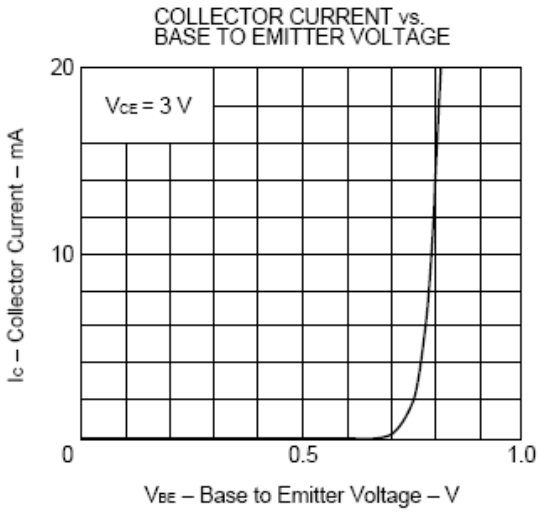
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	12			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	3			V
Collector cut-off current	I_{CBO}	V_{CB}=10V,I_E=0			1.0	μA
Emitter cut-off current	I_{EBO}	V_{EB}=1V,I_C=0			1.0	μA
DC current gain	h_{FE}	V_{CE}=3V,I_C=7mA	40	110	250	
Feed back capacitance	C_{re}	V_{CE}=3V,I_E=0mA,f=1MHz		0.7	1.5	pF
Transition frequency	f_T	V_{CE}=3V, I_E=7mA	3.0	4.5		GHz
Noise Figure	NF	V_{CE}=3V,I_C=7mA,f=1GHz		1.2	2.5	dB

CLASSIFICANTION OF h_{FE}

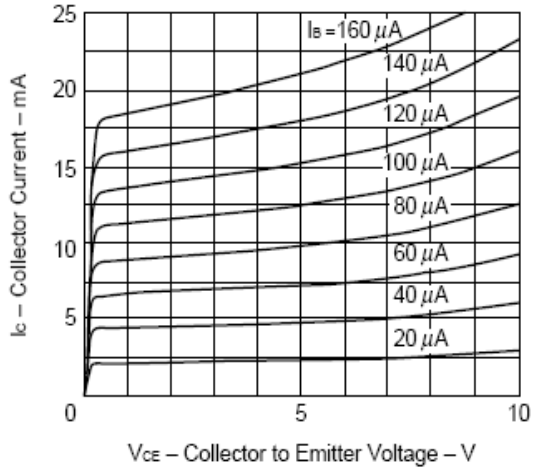
Marking	R23	R24	R25
h_{FE}	40-80	70-140	125-250

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

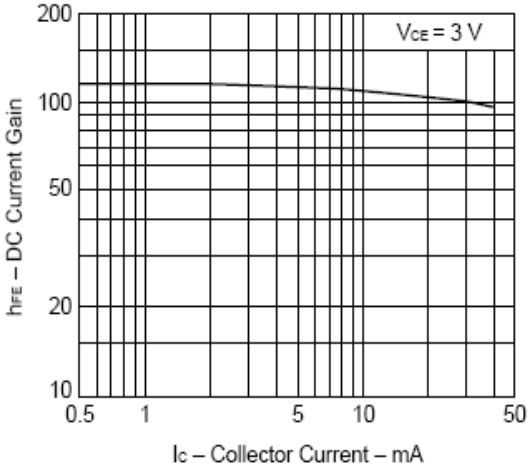




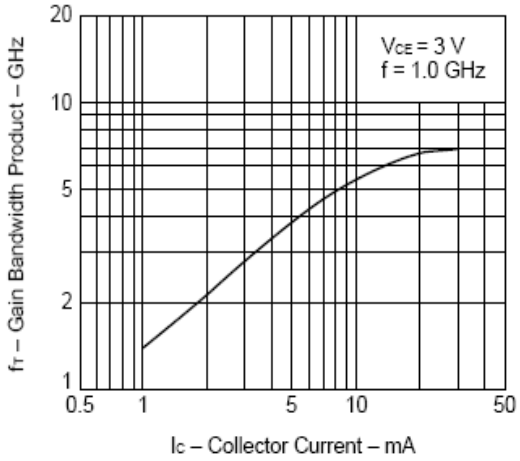
COLLECTOR CURRENT vs.
COLLECTOR TO EMITTER VOLTAGE



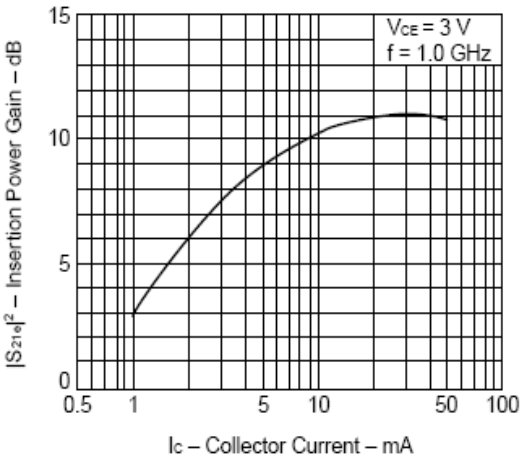
DC CURRENT GAIN vs.
COLLECTOR CURRENT



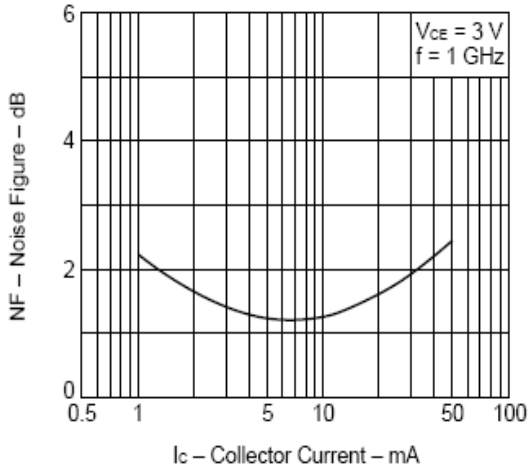
GAIN BANDWIDTH PRODUCT
vs. COLLECTOR CURRENT



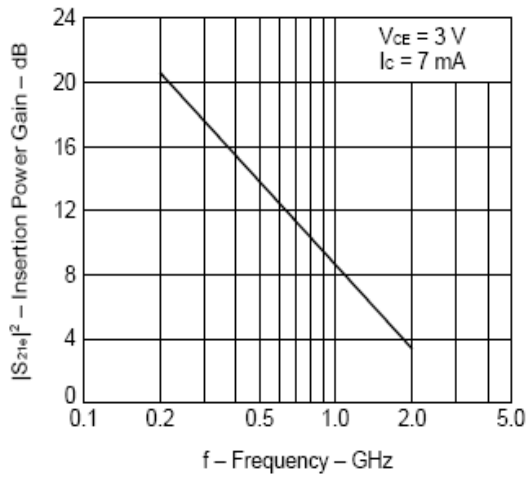
INSERTION POWER GAIN vs.
COLLECTOR CURRENT



NOISE FIGURE vs.
COLLECTOR CURRENT



INSERTION POWER GAIN vs. FREQUENCY



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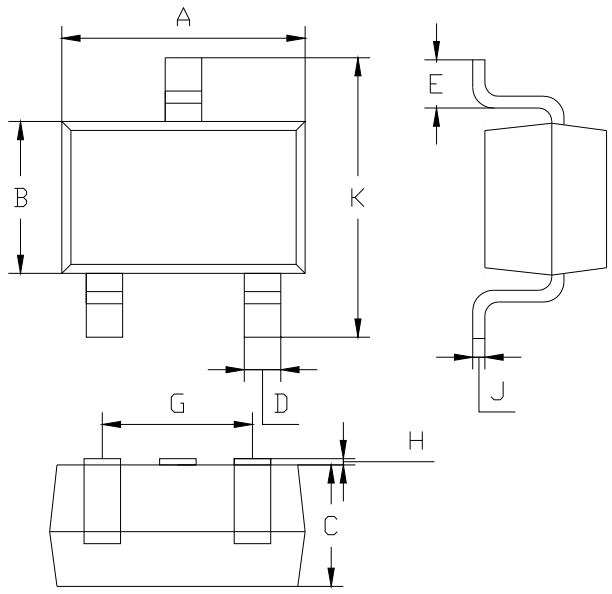
PACKAGE OUTLINE

Plastic surface mounted package



SOT-323		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1.0Typical	
D	0.15	0.35
E	0.25	0.40
G	1.2	1.4
H	0.02	0.1
J	0.1Typical	
K	2.2	2.4
All Dimensions in mm		