

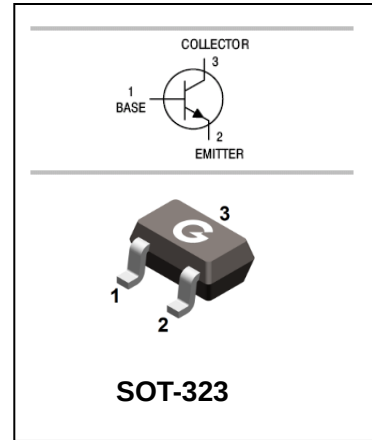
NPN Silicon Epitaxial Planar Transistor

2SC4226

FEATURES

- Low noise
- High gain
- Power dissipation ($P_C = 150\text{mW}$)
- RoHS compliant with Halogen-free

HF



APPLICATIONS

- High frequency low noise amplifier

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC4226-A	R23A	SOT-323
2SC4226-B	R24B	SOT-323
2SC4226-C	R25C	SOT-323

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ 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	$^\circ\text{C}$

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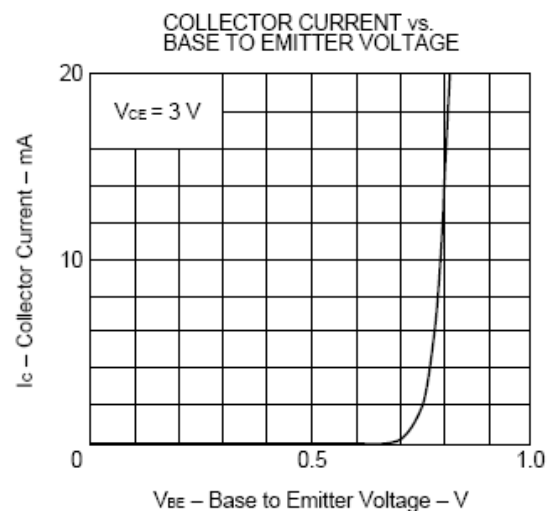
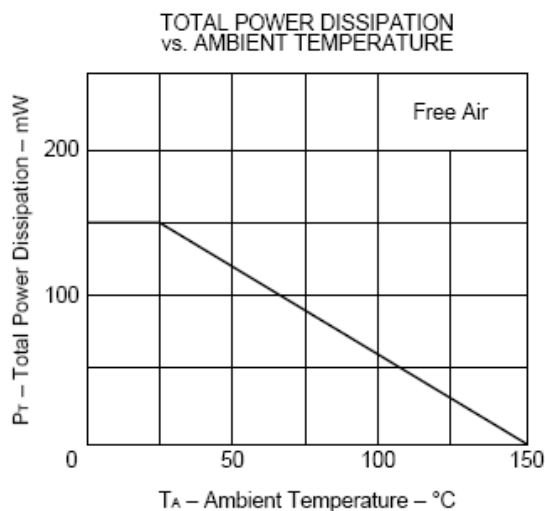
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	20	-	-	V
Collector-emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	12	-	-	V
Emitter-base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	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	5	-	GHz
Noise Figure	NF	$V_{CE}=3V, I_C=7mA, f=1GHz$	-	1.8	2.5	dB
Insertion Power Gain	$ S_{21e} ^2$	$V_{CE}=3V, I_C=7mA, f=1GHz$	7	18	-	dB

CLASSIFICATION OF h_{FE}

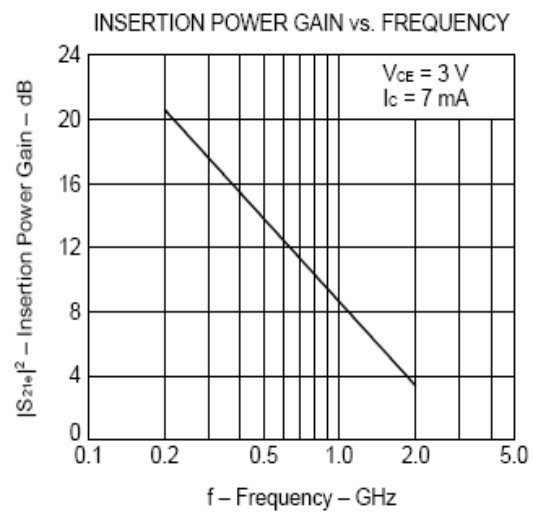
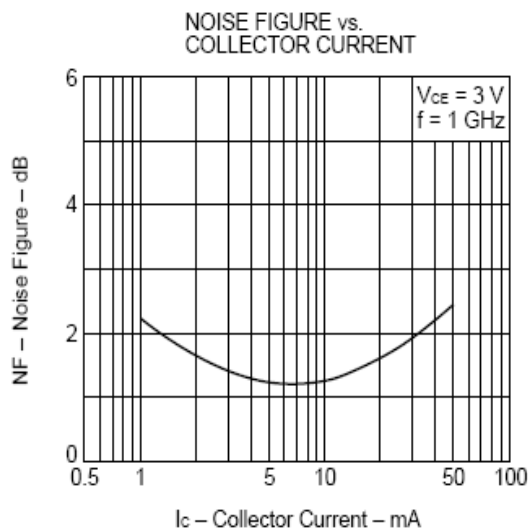
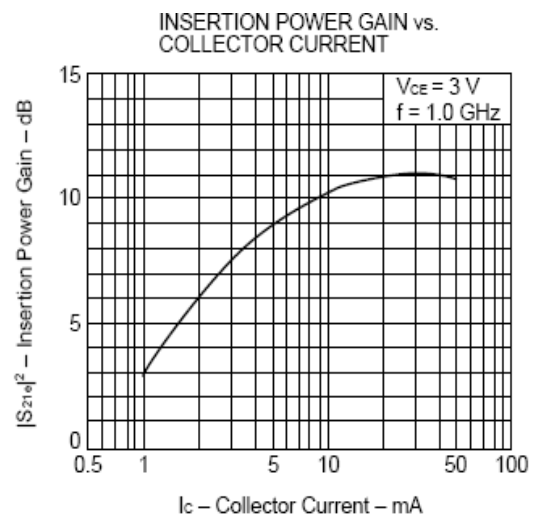
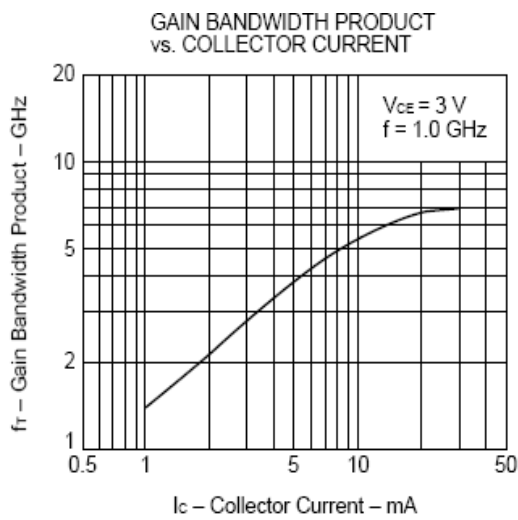
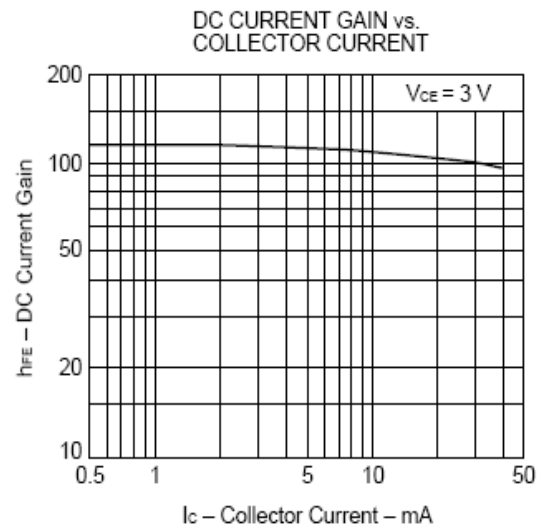
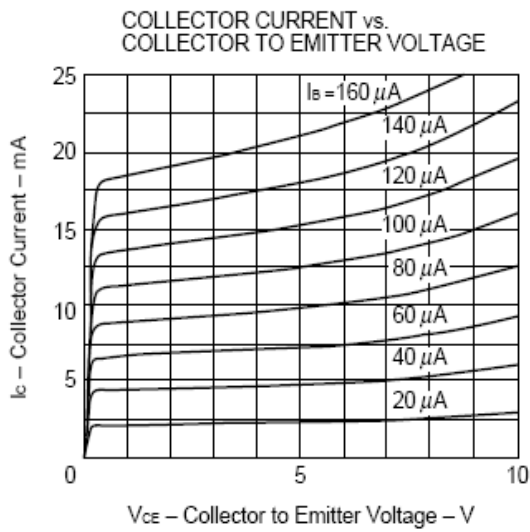
Rank	A	B	C
Marking	R23A	R24B	R25C
h_{FE}	40-80	70-140	125-250

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



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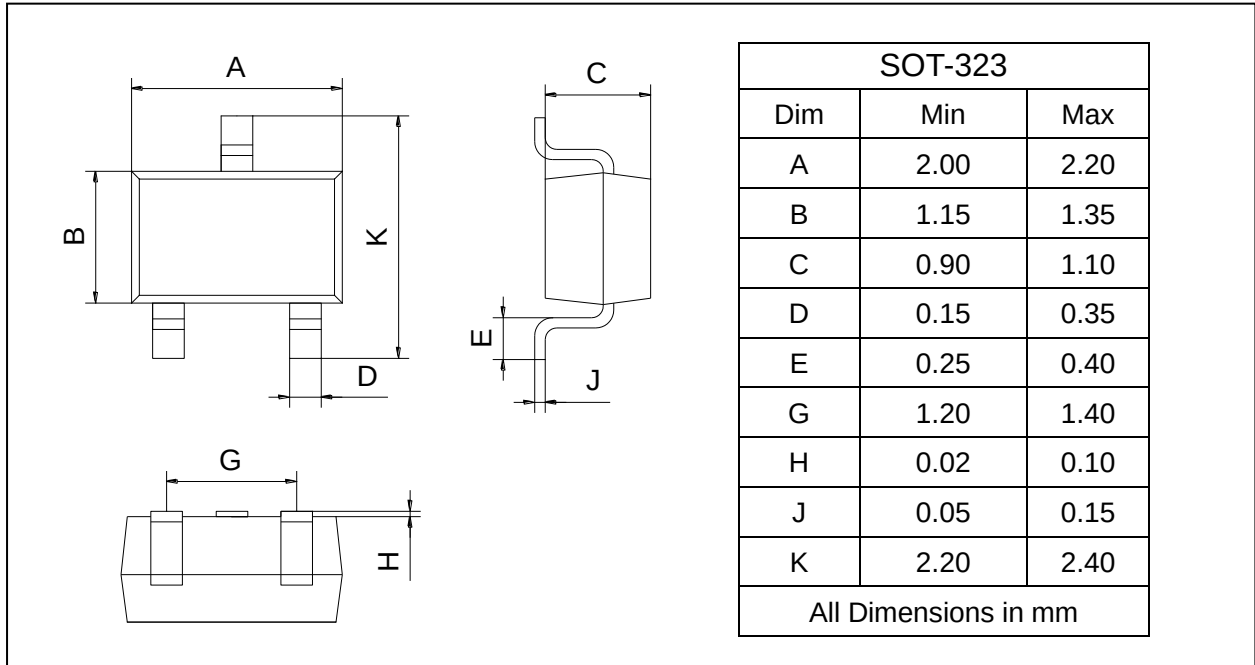
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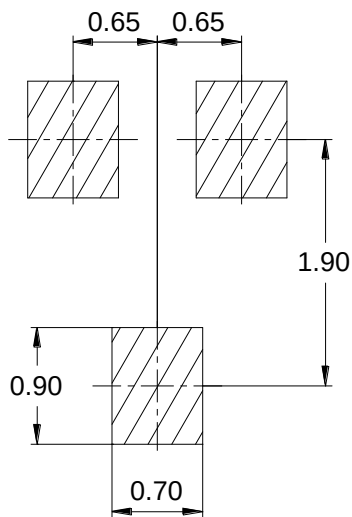
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SC4226-A/B/C	SOT-323	3000 pcs / Tape & Reel