

## NPN Silicon Epitaxial Planar Transistor

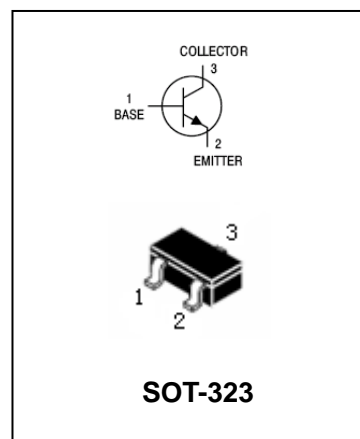
### FEATURES

- Low noise.
- High gain.
- Power dissipation.( $P_C=150\text{mW}$ )

### APPLICATIONS

- High frequency low noise amplifier.

### ORDERING INFORMATION



### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

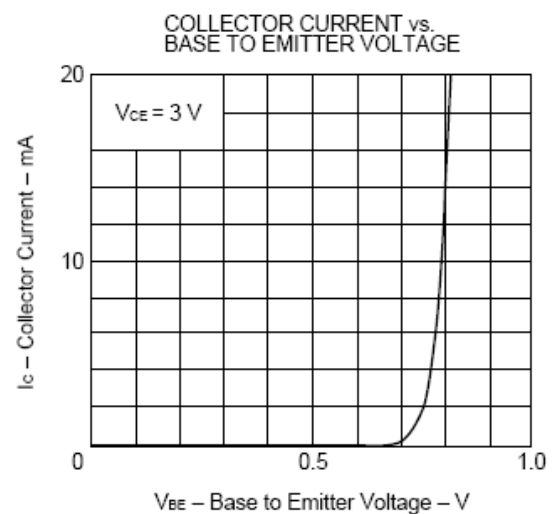
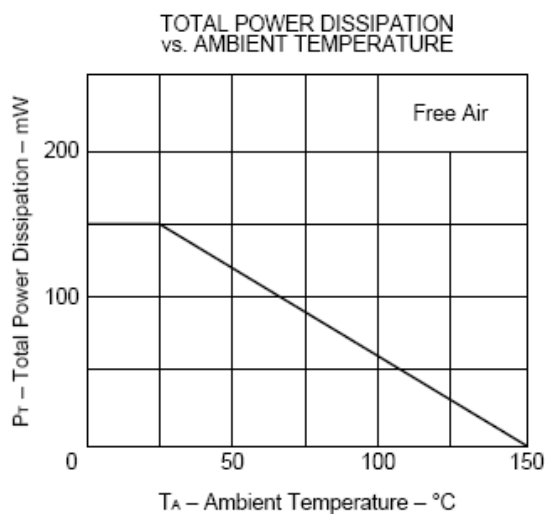
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	20	V
$V_{CEO}$	Collector-Emitter Voltage	12	V
$V_{EBO}$	Emitter-Base Voltage	3	V
$I_C$	Collector Current -Continuous	100	mA
$P_C$	Collector Dissipation	150	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-65 to +150	$^\circ\text{C}$

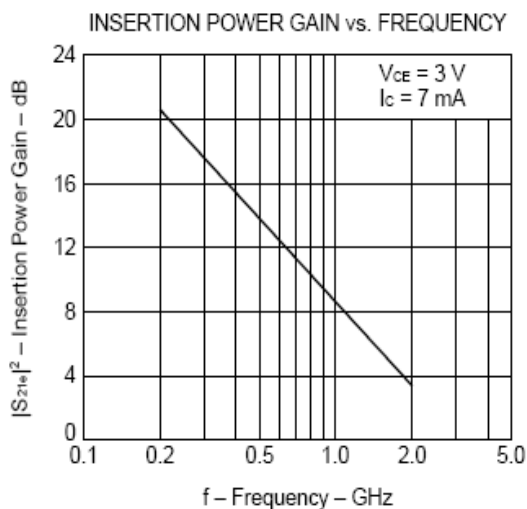
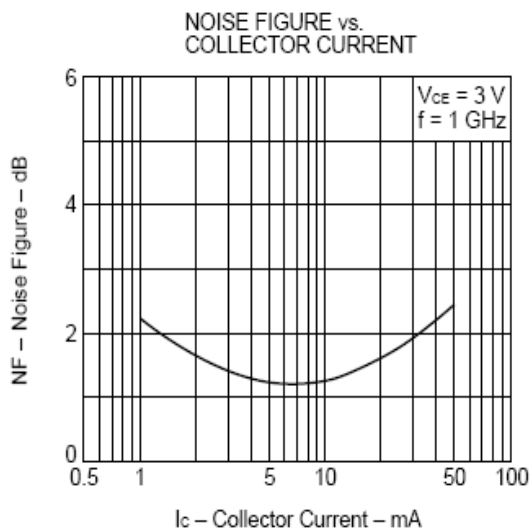
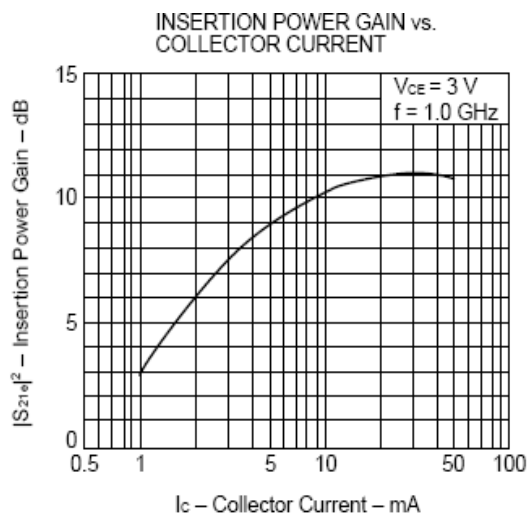
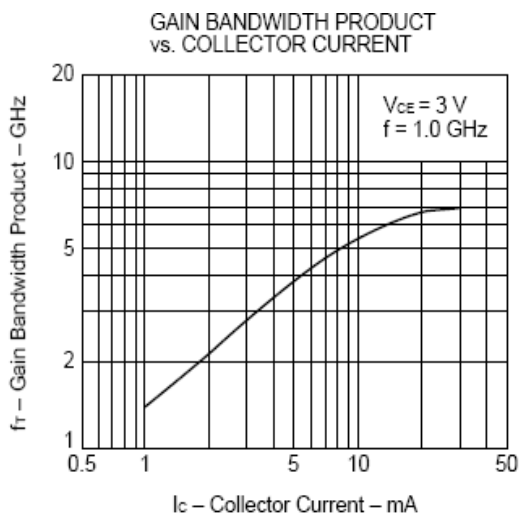
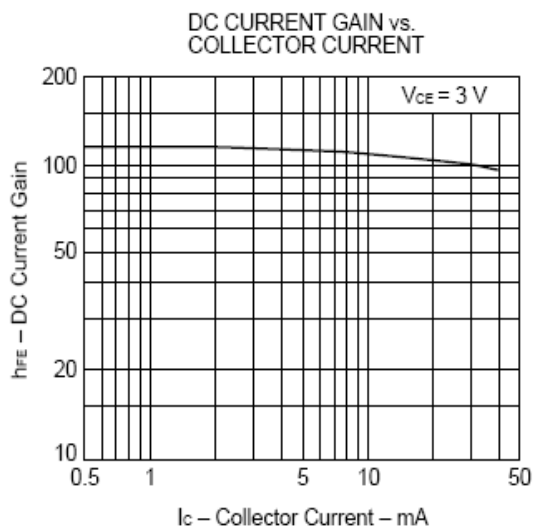
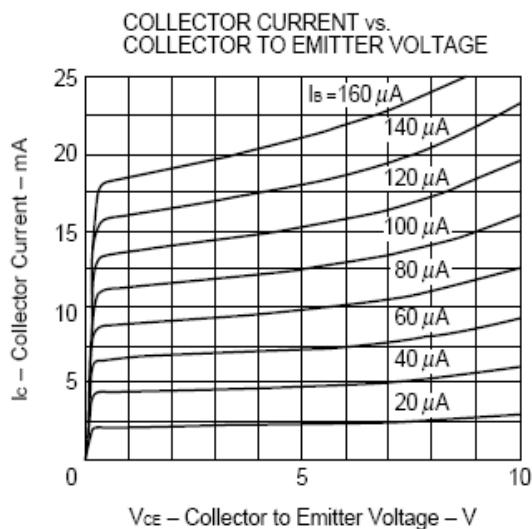
**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

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	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=1V, I_C=0$			1.0	$\mu A$
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

**CLASSIFICATION OF  $h_{FE}$** 

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

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**




## PACKAGE OUTLINE

Plastic surface mounted package

