

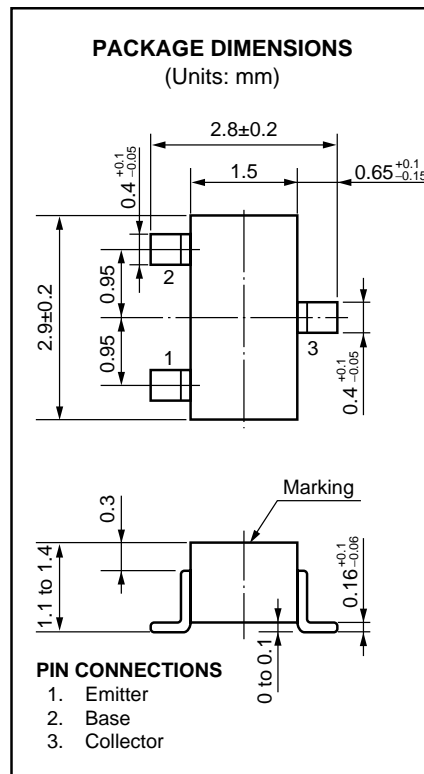
HIGH FREQUENCY LOW NOISE AMPLIFIER  
NPN SILICON EPITAXIAL TRANSISTOR  
MINI MOLD

FEATURES

- NF 1.5 dB TYP. @ f = 1.0 GHz
- MAG 14 dB TYP. @ f = 1.0 GHz

ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25 °C)

Collector to Base Voltage	V <sub>CB0</sub>	25	V
Collector to Emitter Voltage	V <sub>CE0</sub>	12	V
Emitter to Base Voltage	V <sub>EB0</sub>	3.0	V
Collector Current	I <sub>c</sub>	70	mA
Total Power Dissipation	P <sub>T</sub>	250	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-65 to +150	°C



ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25 °C)

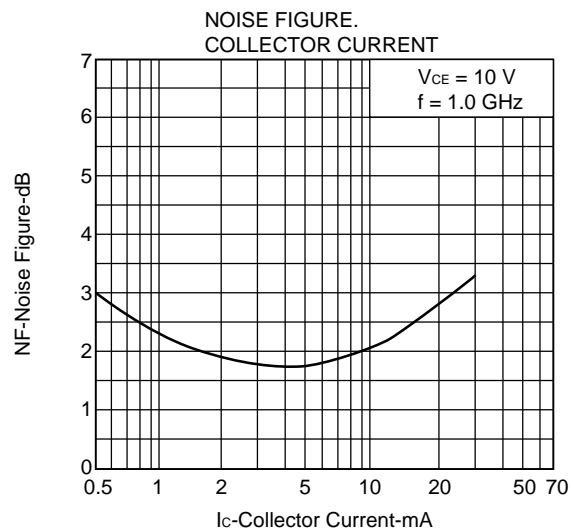
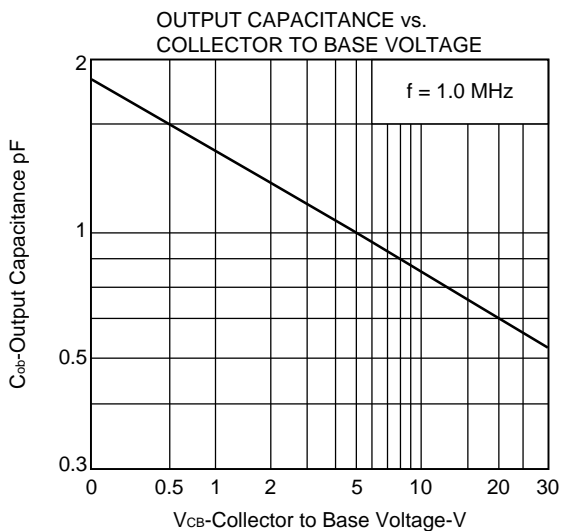
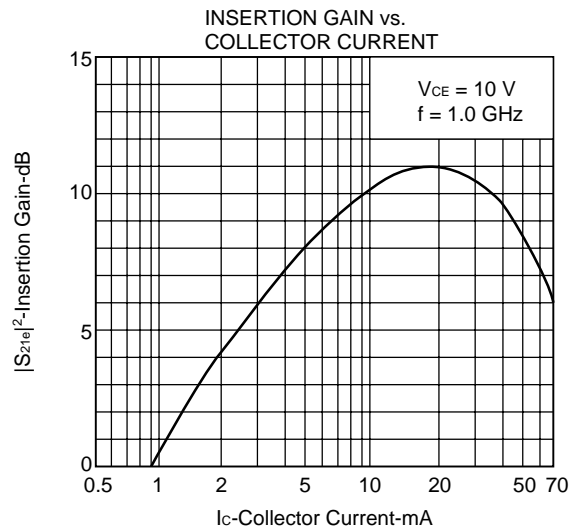
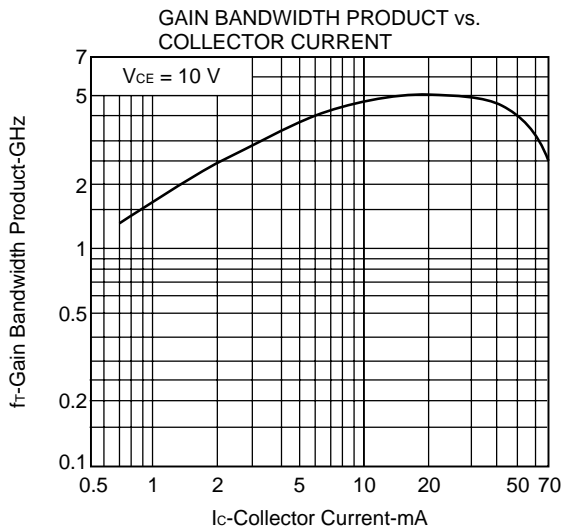
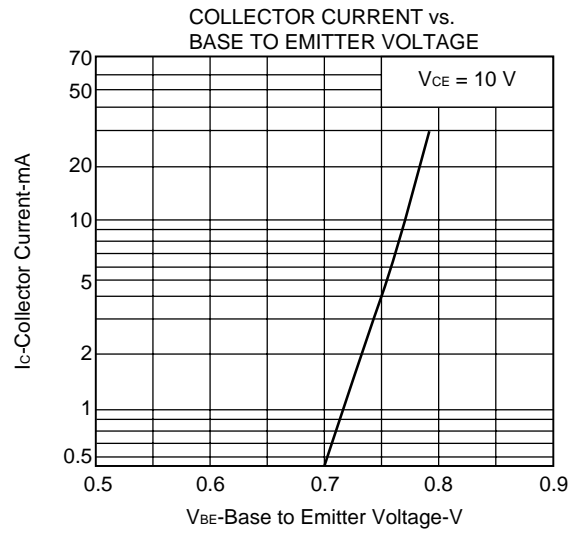
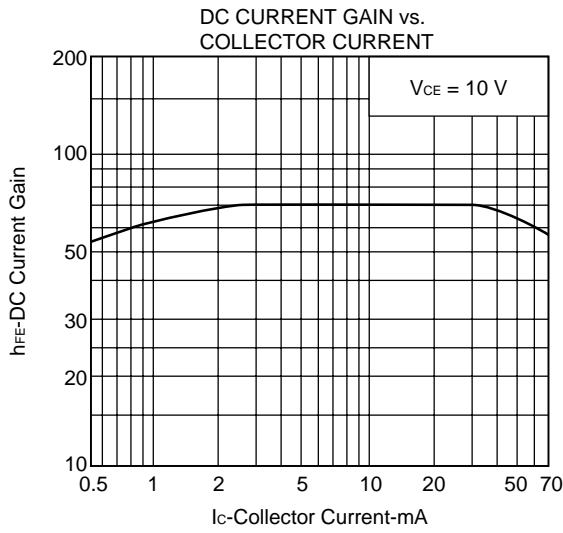
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I <sub>CB0</sub>			0.1	μA	V <sub>CB</sub> = 15 V, I <sub>E</sub> = 0
Emitter Cutoff Current	I <sub>EB0</sub>			0.1	μA	V <sub>EB</sub> = 2.0 V, I <sub>C</sub> = 0
DC Current Gain	h <sub>FE</sub>	40		200		V <sub>CE</sub> = 10 V, I <sub>C</sub> = 20 mA
Gain Bandwidth Product	f <sub>T</sub>		4.5		GHz	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 20 mA
Output Capacitance	C <sub>ob</sub>		0.75	1.0	pF	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1.0 MHz
Insertion Power Gain	S <sub>21e</sub>   <sup>2</sup>	9	11		dB	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 20 mA, f = 1.0 GHz
Noise Figure	NF		1.5	3.0	dB	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 5 mA, f = 1.0 GHz
Maximum Available Gain	MAG		14		dB	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 20 mA, f = 1.0 GHz

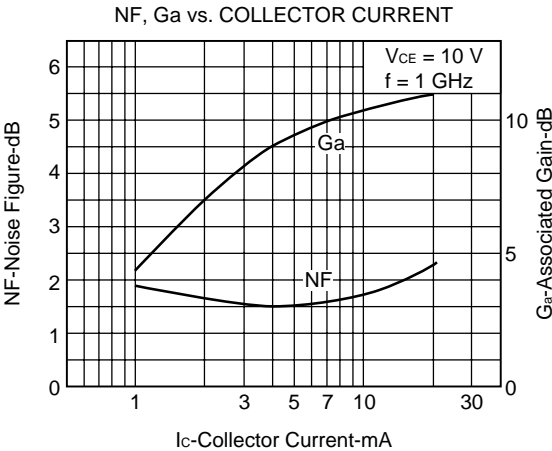
h<sub>FE</sub> Classification

Class	E/P *	F/Q *
Marking	R2	R3
h <sub>FE</sub>	40 to 120	100 to 200

\* Old Specification / New Specification

TYPICAL CHARACTERISTICS (T<sub>A</sub> = 25 °C)





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Anti-radioactive design is not implemented in this product.