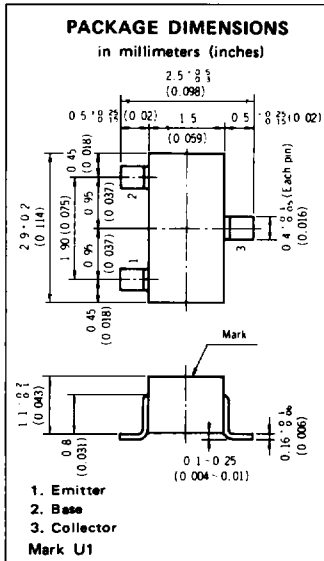


2SC2350

High Frequency Low Noise Amplifier NPN Silicon Epitaxial Transistor



- Low Noise Figure: $NF=2.3$ dB TYP. ($f=500$ MHz)
- High Maximum Available Gain: $MAG = 17$ dB TYP. ($f=500$ MHz)

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Current ($T_a = 25^\circ\text{C}$)

Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	14	V
Emitter to Base Voltage	V_{EBO}	3.0	V
Collector Current (DC)	I_C	50	mA

Maximum Power Dissipation

Total Power Dissipation at 25°C Ambient Temperature	P_T	250	mW
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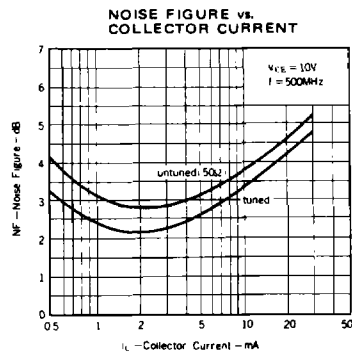
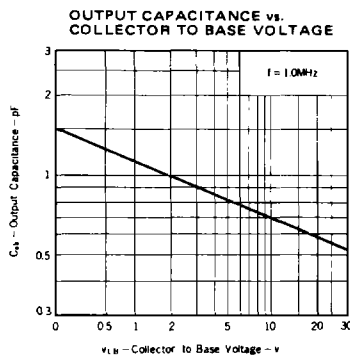
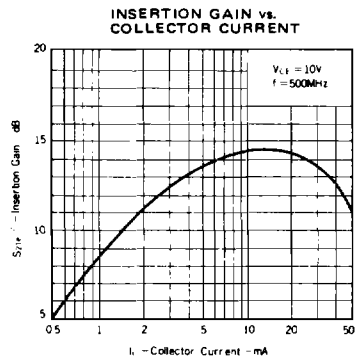
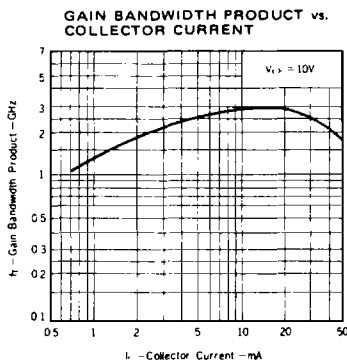
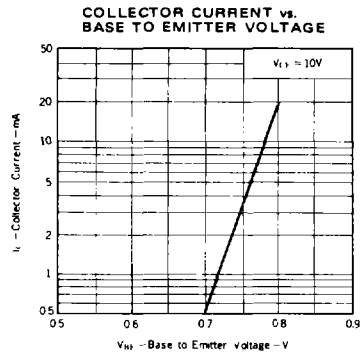
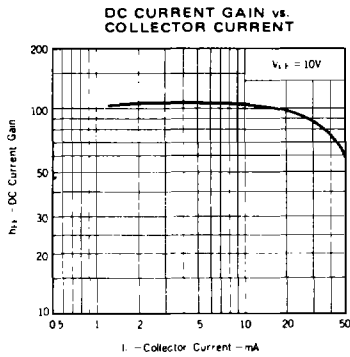
Maximum Temperatures

Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I_{CBO}			0.1	μA	$V_{CB} = 15\text{V}, I_E = 0$
Emitter Cutoff Current	I_{EBO}			0.1	μA	$V_{EB} = 2.0\text{V}, I_C = 0$
DC Current Gain	h_{FE}	40		200		$V_{CE} = 10\text{V}, I_C = 10\text{mA}$
Gain Bandwidth Product	f_T		2.8		GHz	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$
Output Capacitance	C_{ob}		0.7	1.0	pF	$V_{CB} = 10\text{V}, I_E = 0, f = 1.0\text{MHz}$
Insertion Power Gain	$ S_{21} ^2$	13	14.5		dB	$V_{CE} = 10\text{V}, I_C = 10\text{mA}, f = 500\text{MHz}$
Noise Figure	NF		2.3	3.5	dB	$V_{CE} = 10\text{V}, I_C = 3\text{mA}, f = 500\text{MHz}$
Maximum Available Gain	MAG		17		dB	$V_{CE} = 10\text{V}, I_C = 10\text{mA}, f = 500\text{MHz}$

TYPICAL CHARACTERISTICS (T_a = 25°C)



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