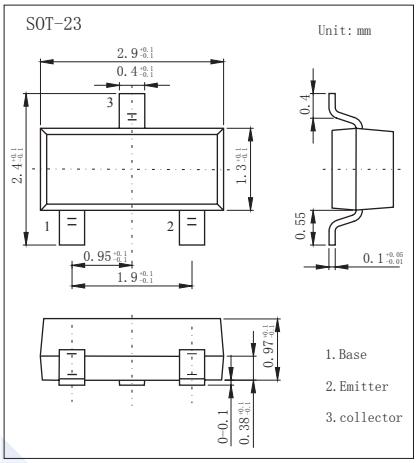
NPN Transistors

2SC3429



■ Features

- Collector Current Capability I_C=70mA
- Collector Emitter Voltage V_{CEO}=12V

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	17	V
Collector - Emitter Voltage	V_{CEO}	12	
Emitter - Base Voltage	V_{EBO}	3	
Collector Current - Continuous	I_C	70	mA
Base Current	I_B	30	
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	125	℃
Storage Temperature Range	T_{stg}	-55 to 125	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA, I_E= 0	17			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA, I_B= 0	12			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	3			
Collector-base cut-off current	I_{CBO}	V_{CB}= 10V , I_E= 0			1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 1V , I_C=0			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=70 mA, I_B=7mA			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=70 mA, I_B=7mA			1.2	
DC current gain	h_{FE}	V_{CE}= 10V, I_C= 20mA	25			
Noise figure	NF	V_{CE}= 10V, I_C= 5mA,f=500MHz		1.5		dB
		V_{CE}= 10V, I_C= 5mA,f=1GHz		1.7		
Insertion gain	$\|S21e\|^2$	V_{CE}= 10V, I_C= 20mA,f=500MHz		16		
		V_{CE}= 10V, I_C= 20mA,f=1GHz		10.5		
Reverse transfer capacitance	C_{re}	V_{CB}= 10V, I_E= 0,f=1MHz		0.57		pF
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E= 0,f=1MHz		0.85		pF
Transition frequency	f_T	V_{CE}= 10V, I_C=20mA		5		GHz

■ Marking

Marking	ME

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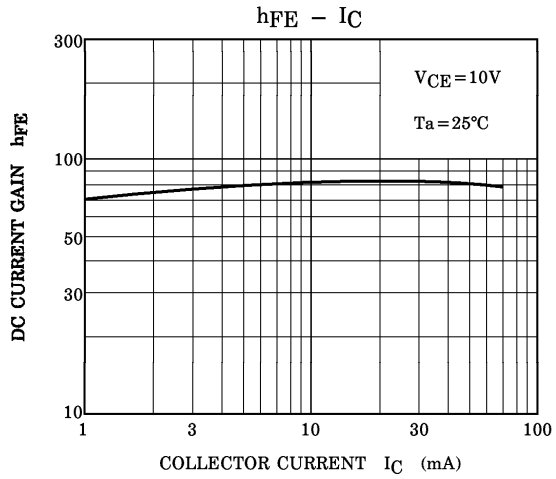
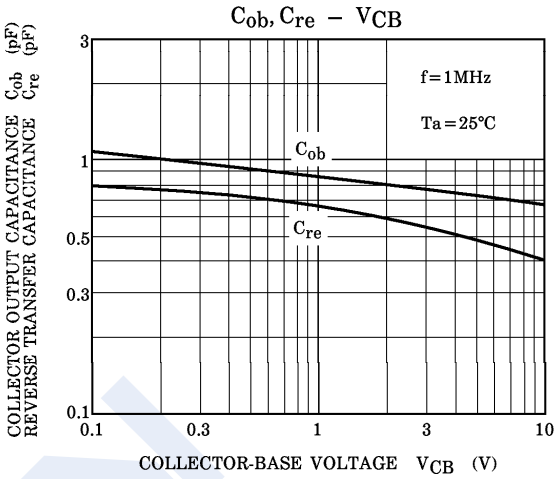
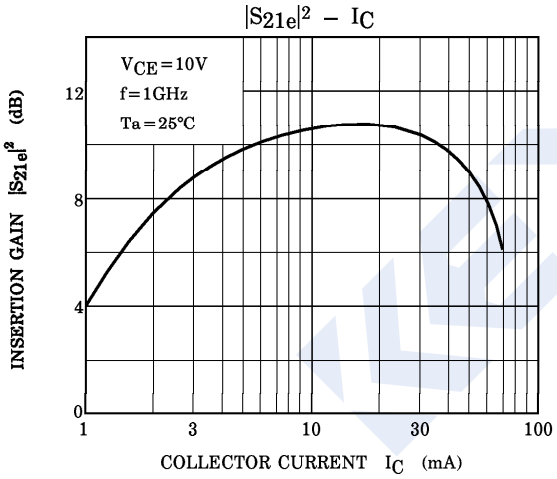
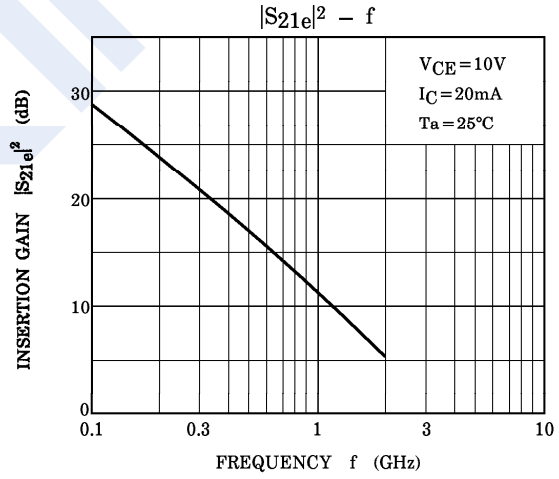
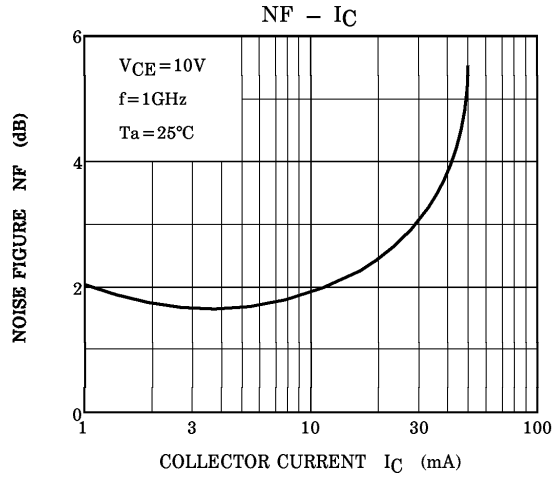
■ Typical Characterisitics

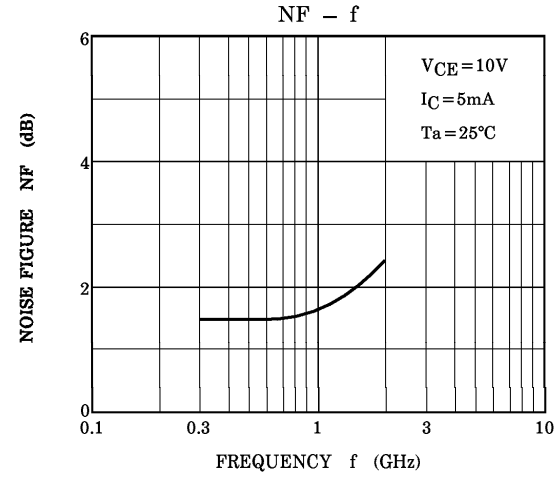












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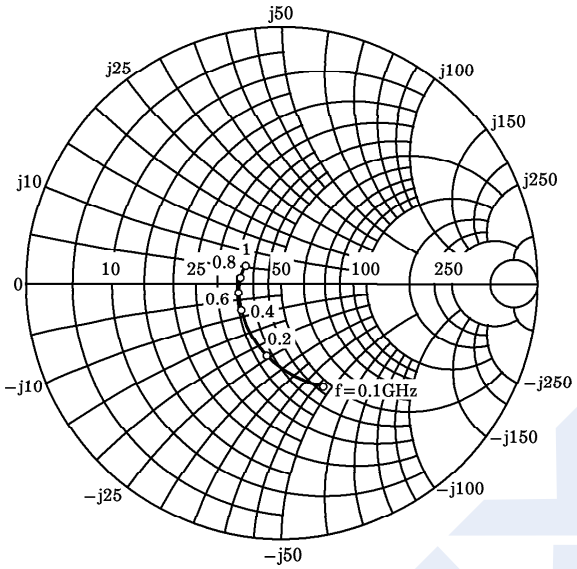
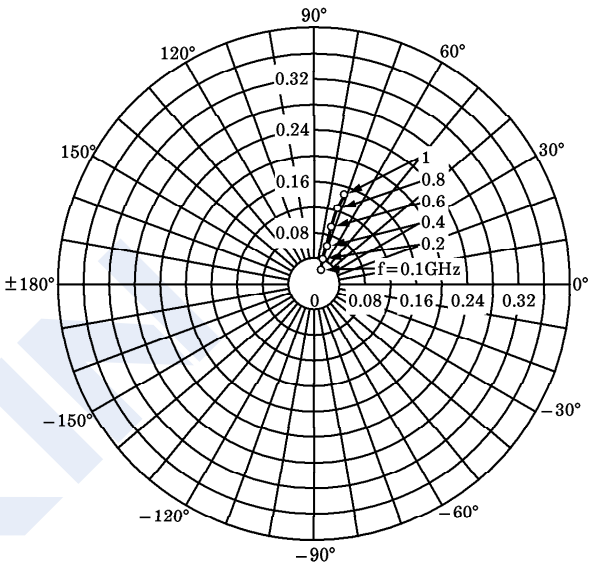
■ Typical Characterisitics

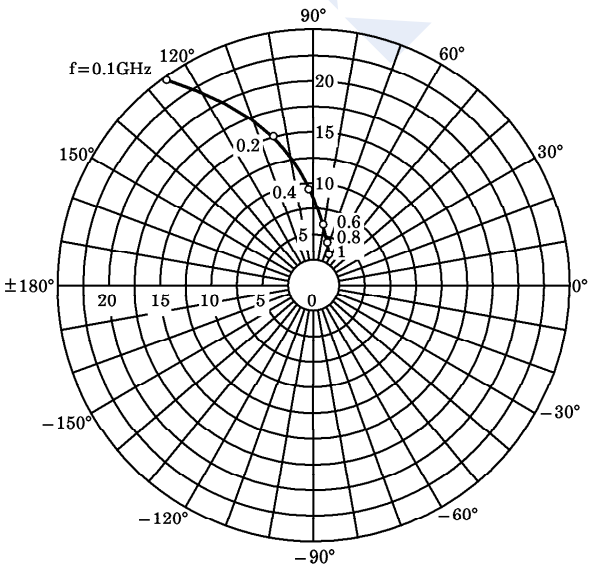
S_{11e}
V_{CE}=10V
I_C=20mA
Ta=25°C
(UNIT : Ω)



S_{12e}
V_{CE}=10V
I_C=20mA
Ta=25°C



S_{21e}
V_{CE}=10V
I_C=20mA
Ta=25°C



S_{22e}
V_{CE}=10V
I_C=20mA
Ta=25°C
(UNIT : Ω)