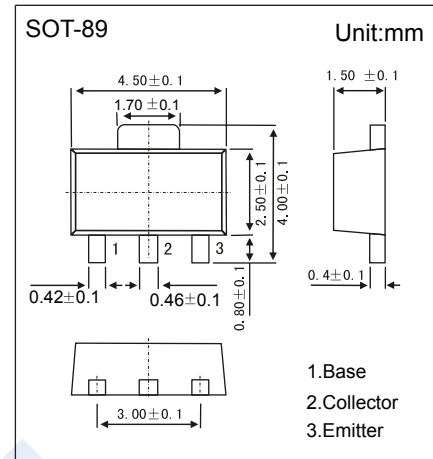


NPN Transistors

2SC4807

■ Features

- Collector Current Capability $I_C=0.2A$
- Collector Emitter Voltage $V_{CEO}=15V$

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	20	V
Collector - Emitter Voltage	V_{CEO}	15	
Emitter - Base Voltage	V_{EBO}	2	
Collector Current - Continuous	I_C	0.2	mA
Collector Power Dissipation	P_C	0.8	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu A, I_E = 0$	20			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 mA, I_B = 0$	15			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	2			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 15 V, I_E = 0$			1	μA
Collector-emitter cut-off current	I_{CEO}	$V_{CE} = 15 V, R_{BE} = \infty$			100	
Emitter cut-off current	I_{EBO}	$V_{EB} = 10 V, I_C = 0$			10	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 200 mA, I_B = 20 mA$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 200 mA, I_B = 20 mA$			1.2	
DC current gain	h_{FE}	$V_{CE} = 5 V, I_C = 100 mA$	50		250	
Power gain	PG	$V_{CE} = 5 V, I_C = 100 mA, f = 900 MHz$	5			dB
Noise figure	NF	$V_{CE} = 5 V, I_C = 20 mA, f = 900 MHz$			4	
Collector output capacitance	C_{ob}	$V_{CB} = 5 V, I_E = 0, f = 1 MHz$			4	pF
Transition frequency	f_T	$V_{CE} = 5 V, I_C = 100 mA$	3			GHz

■ Marking

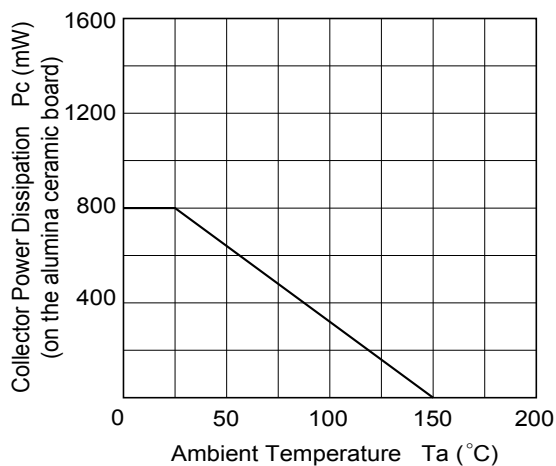
Marking	ER
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NPN Transistors

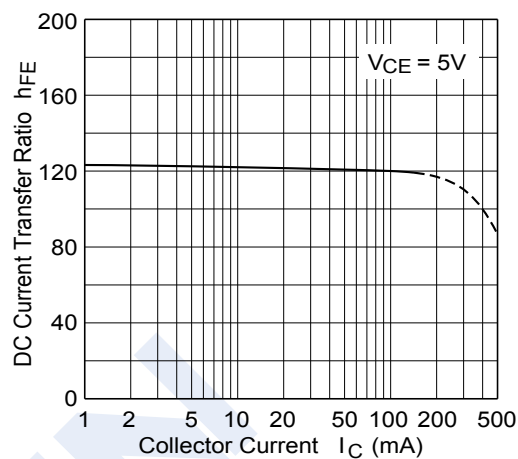
2SC4807

■ Typical Characteristics

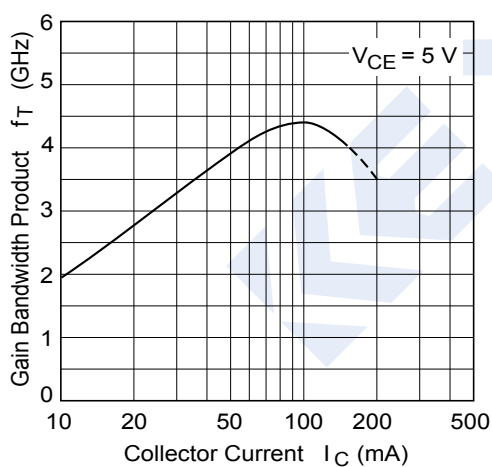
Maximum Collector Dissipation Curve



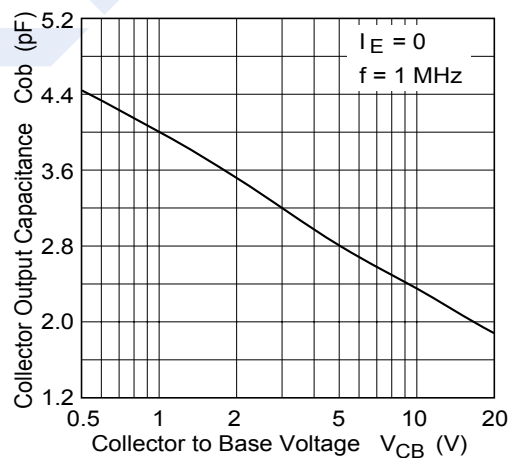
DC Current Transfer Ratio vs. Collector Current



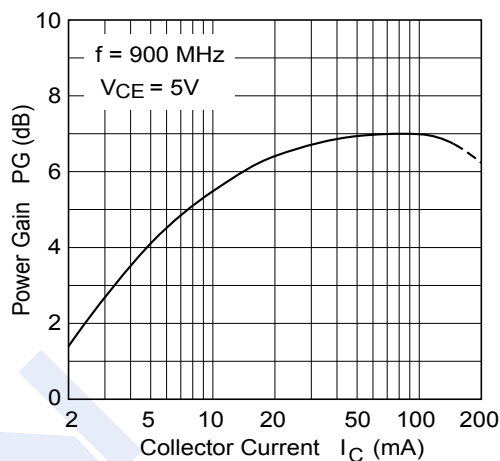
Gain Bandwidth Product vs. Collector Current



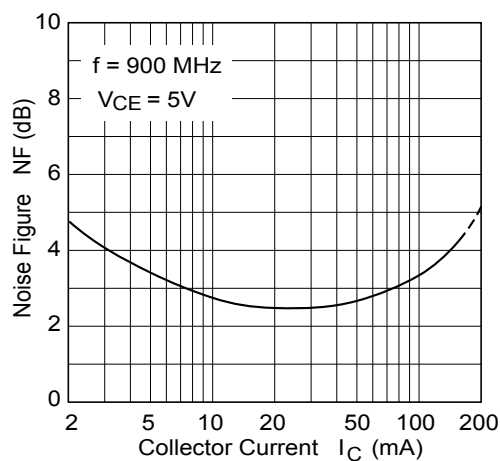
Collector Output Capacitance vs. Collector to Base Voltage



Power Gain vs. Collector Current



Noise Figure vs. Collector Current

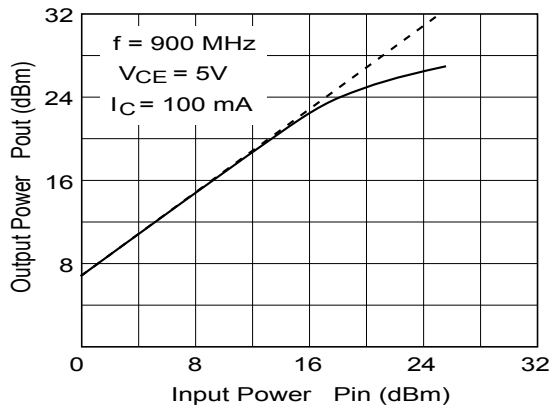


NPN Transistors

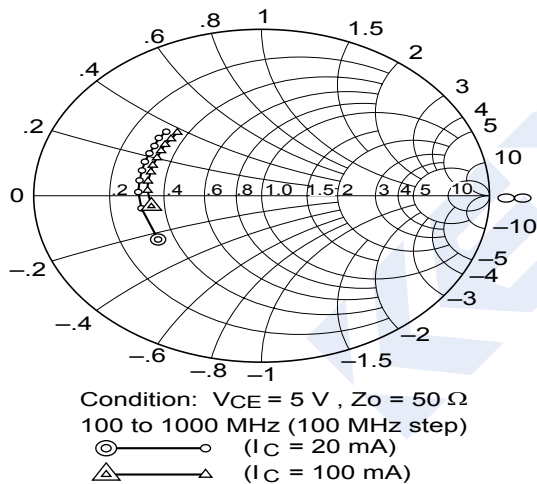
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■ Typical Characteristics

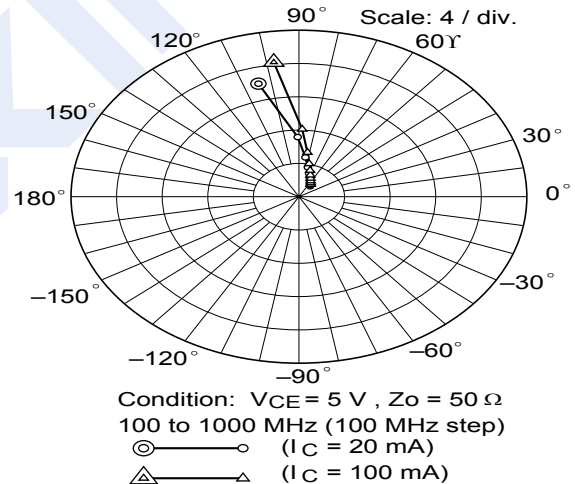
Output Power vs. Input Power



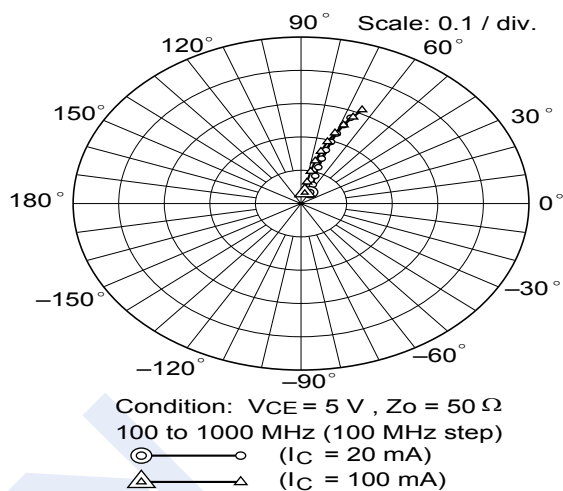
S11 Parameter vs. Frequency



S21 Parameter vs. Frequency



S12 Parameter vs. Frequency



S22 Parameter vs. Frequency

