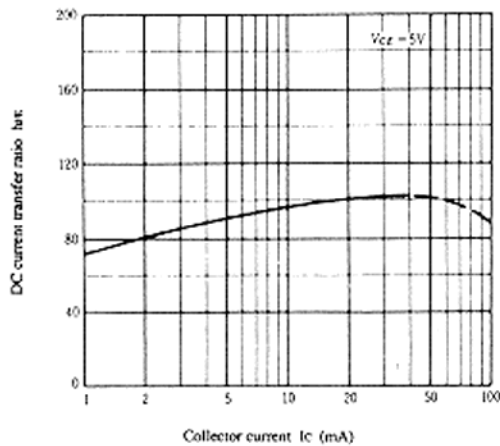




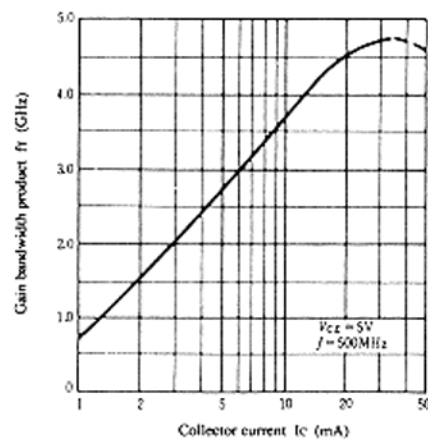
### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	20	—	—	V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	12	—	—	V
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 3V, I_C = 0$	—	—	10	$\mu A$
Collector cutoff current	$I_{CBO}$	$V_{CB} = 12V, I_E = 0$	—	—	0.5	$\mu A$
DC current transfer ratio	hFE	$V_{CE} = 5V, I_C = 20mA$	30	90	200	
Collector output capacitance	$C_{ob}$	$V_{CB} = 5V, I_E = 0, f = 1MHz$	—	0.9	1.5	pF
Gain bandwidth product	fr	$V_{CE} = 5V, I_C = 20mA$	3.5	4.5	—	GHz
Power gain	PG	$V_{CE} = 5V, I_C = 20mA, f = 900MHz$	—	10.5	—	dB
Noise figure	NF	$V_{CE} = 5V, I_C = 5mA, f = 900MHz$	—	2.2	—	dB

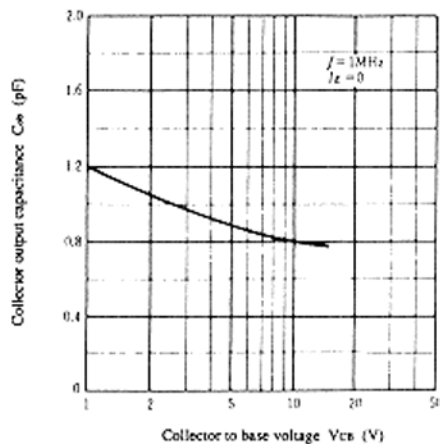
**DC CURRENT TRANSFER RATIO  
VS. COLLECTOR CURRENT**



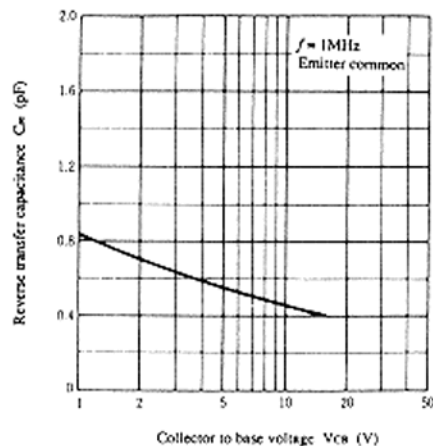
**GAIN BANDWIDTH PRODUCT  
VS. COLLECTOR CURRENT**



**COLLECTOR OUTPUT CAPACITANCE  
VS. COLLECTOR TO BASE VOLTAGE**

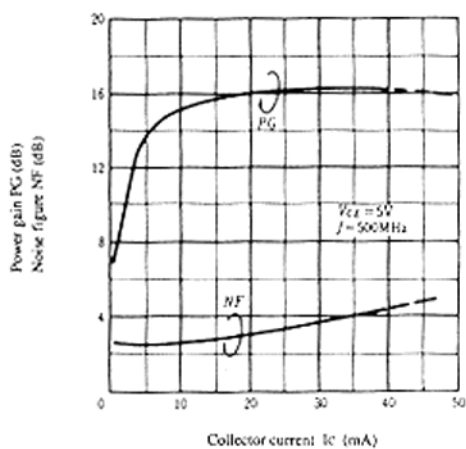


**REVERSE TRANSFER CAPACITANCE  
VS. COLLECTOR TO BASE VOLTAGE**

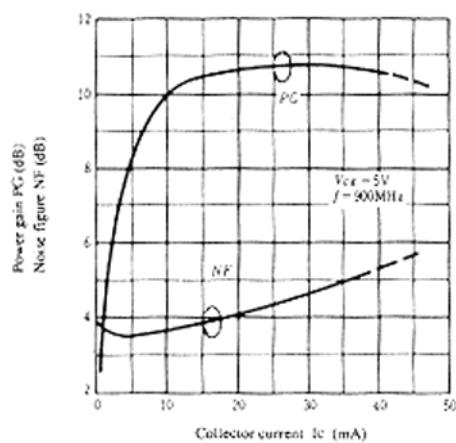


## 2SC3127, 2SC3128, 2SC3510

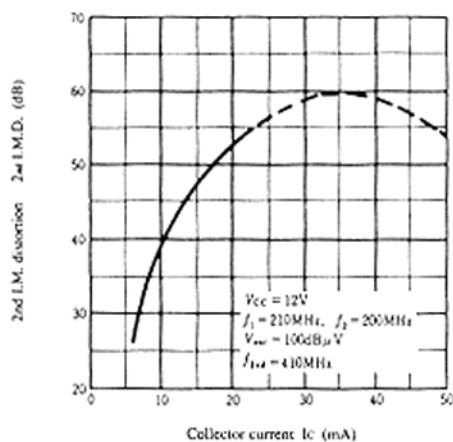
POWER GAIN AND NOISE FIGURE  
VS. COLLECTOR CURRENT



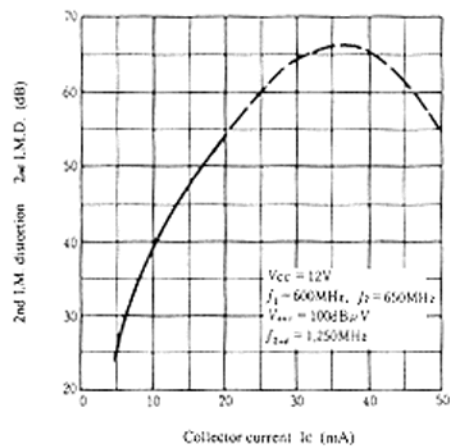
POWER GAIN AND NOISE FIGURE  
VS. COLLECTOR CURRENT



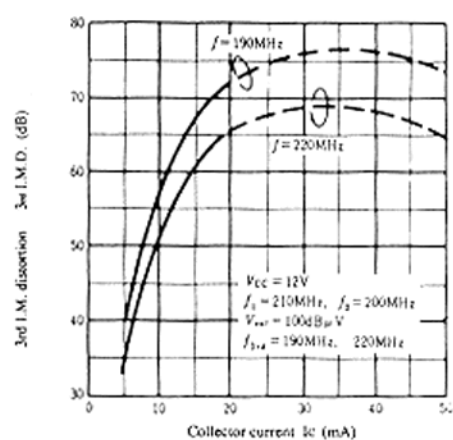
2ND I.M. DISTORTION  
VS. COLLECTOR CURRENT



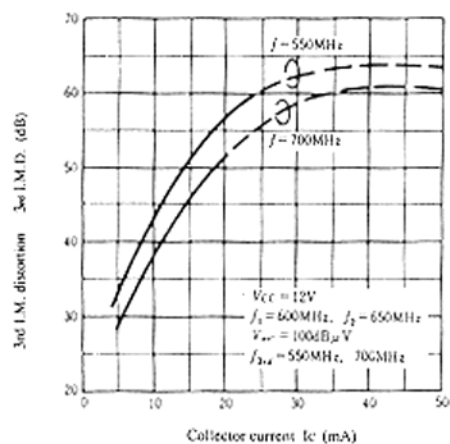
2ND I.M. DISTORTION  
VS. COLLECTOR CURRENT



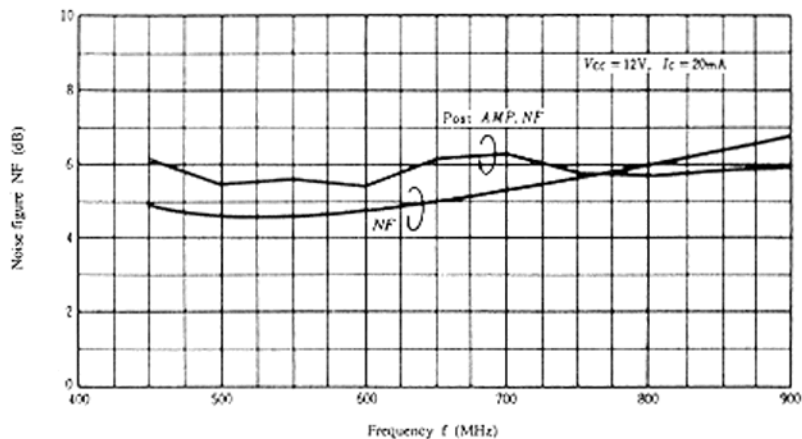
3RD I.M. DISTORTION  
VS. COLLECTOR CURRENT



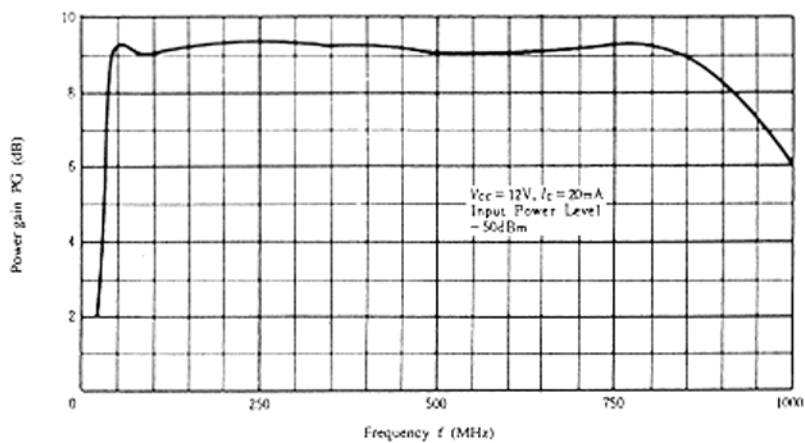
3RD I.M. DISTORTION  
VS. COLLECTOR CURRENT



### NOISE FIGURE VS. FREQUENCY



### POWER GAIN VS. FREQUENCY



### POWER GAIN VS. FREQUENCY

