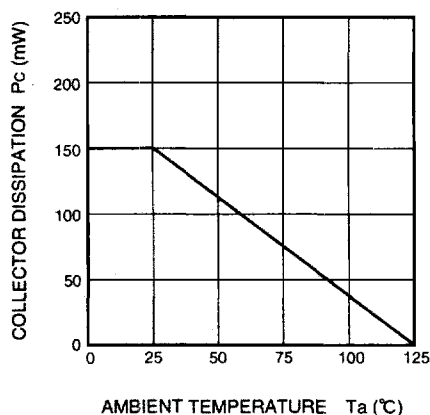


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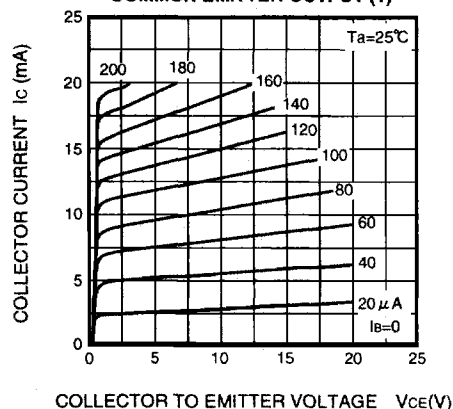
**FOR FM RADIO HIGH FREQUENCY AMPLIFY,
FREQUENCY EXCHANGE, LOCAL OSCILATION APPLICATION
SILICON NPN EPITAXIAL TYPE**

TYPICAL CHARACTERISTICS

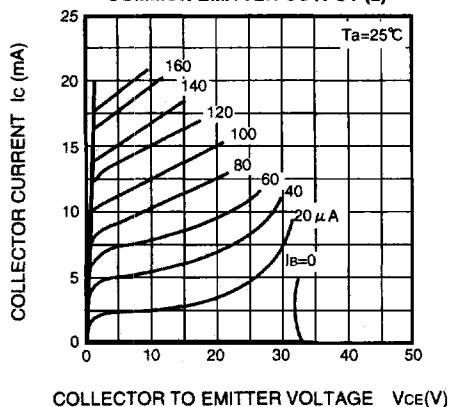
**COLLECTOR DISSIPATION
VS. AMBIENT TEMPERATURE**



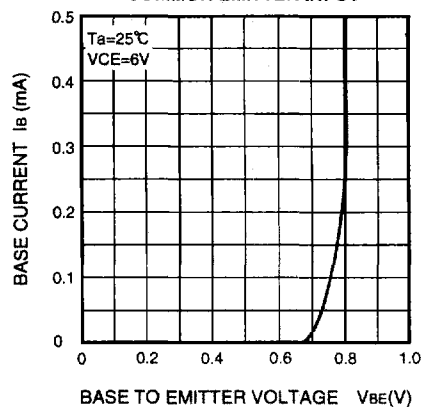
COMMON EMITTER OUTPUT (1)



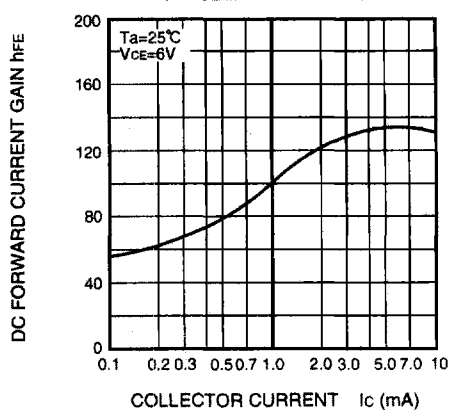
COMMON EMITTER OUTPUT (2)



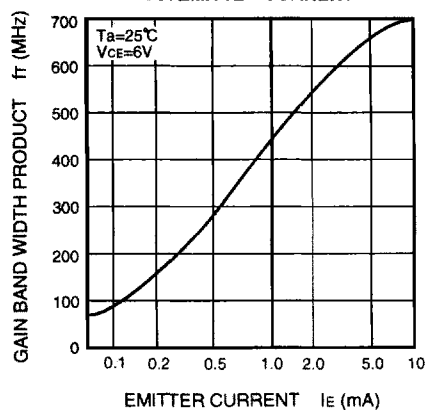
COMMON EMITTER INPUT



**DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT**

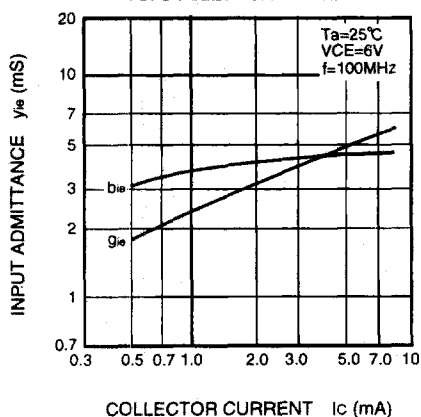


**GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT**

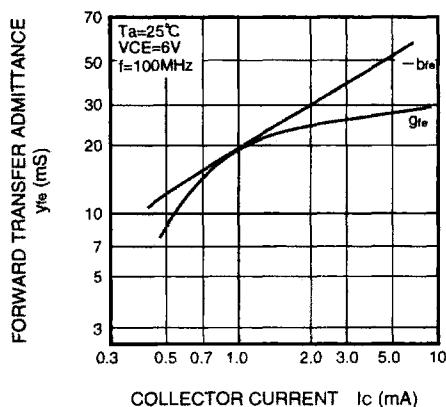


FOR FM RADIO HIGH FREQUENCY AMPLIFY,
FREQUENCY EXCHANGE, LOCAL OSCILATION APPLICATION
SILICON NPN EPITAXIAL TYPE

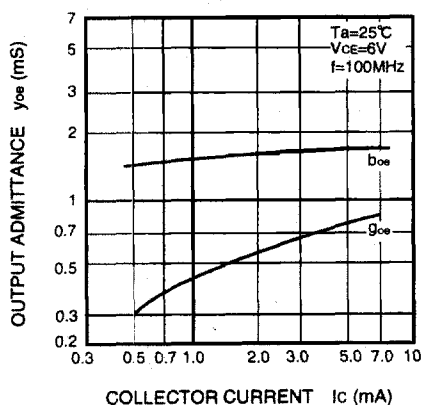
**COMMON EMITTER INPUT ADMITTANCE
VS. COLLECTOR CURRENT**



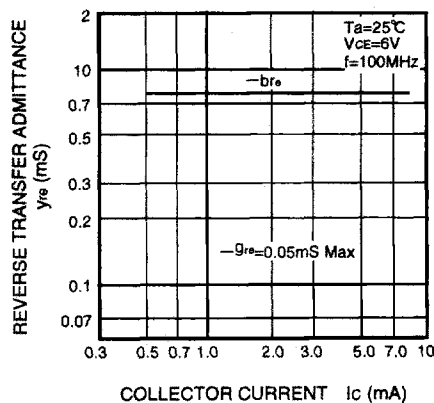
**COMMON EMITTER FORWARD TRANSFER
ADMITTANCE VS. COLLECTOR CURRENT**



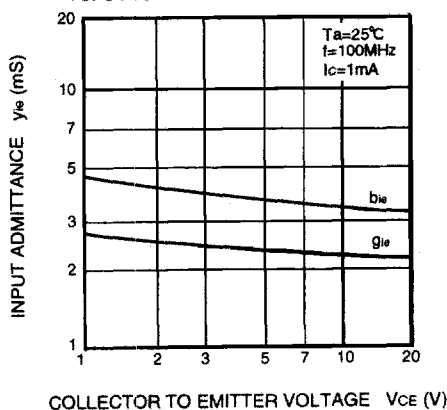
**COMMON EMITTER OUTPUT ADMITTANCE
VS. COLLECTOR CURRENT**



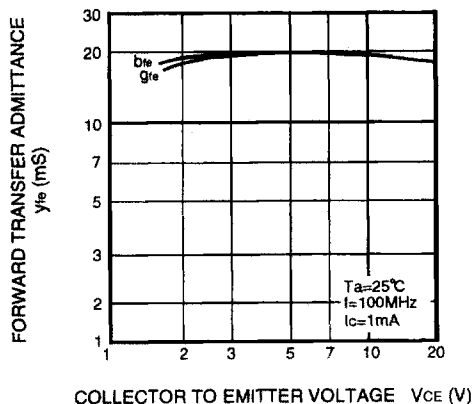
**COMMON EMITTER REVERSE TRANSFER
ADMITTANCE VS. COLLECTOR CURRENT**



**COMMON EMITTER INPUT ADMITTANCE
VS. COLLECTOR TO EMITTER VOLTAGE**



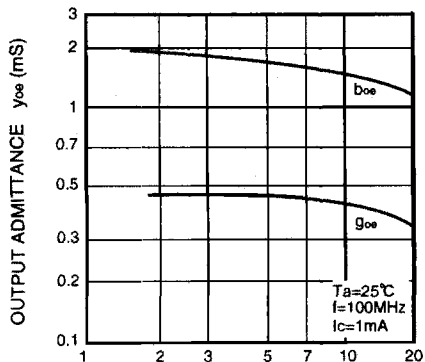
**COMMON EMITTER FORWARD
TRANSFER ADMITTANCE VS.
COLLECTOR TO EMITTER VOLTAGE**



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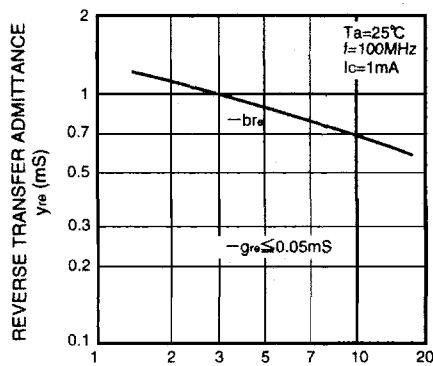
FOR FM RADIO HIGH FREQUENCY AMPLIFY,
FREQUENCY EXCHANGE, LOCAL OSCILLATION APPLICATION
SILICON NPN EPITAXIAL TYPE

COMMON EMITTER OUTPUT ADMITTANCE
VS. COLLECTOR TO EMITTER VOLTAGE



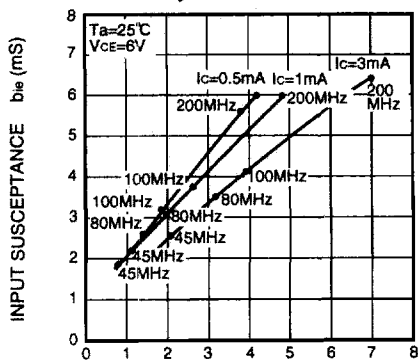
COLLECTOR TO EMITTER VOLTAGE V_{CE} (V)

COMMON EMITTER REVERSE
TRANSFER ADMITTANCE VS.
COLLECTOR TO EMITTER VOLTAGE



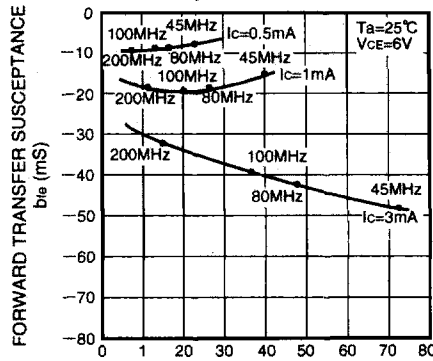
COLLECTOR TO EMITTER VOLTAGE V_{CE} (V)

y_{ie} FREQUENCY



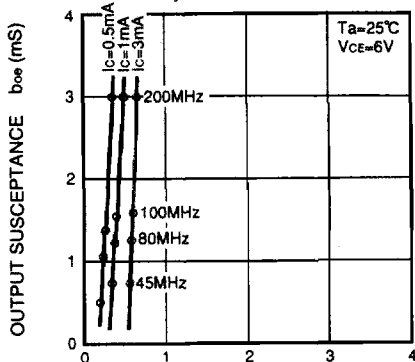
INPUT CONDUCTANCE g_{ie} (mS)

y_{fe} FREQUENCY



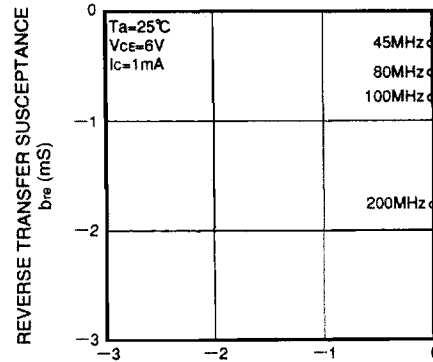
FORWARD TRANSFER CONDUCTANCE g_{fe} (mS)

y_{oe} FREQUENCY



OUTPUT CONDUCTANCE g_{oe} (mS)

y_{re} FREQUENCY



REVERSE TRANSFER CONDUCTANCE g_{re} (mS)

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FOR FM RADIO HIGH FREQUENCY AMPLIFY,
FREQUENCY EXCHANGE, LOCAL OSCILATION APPLICATION
SILICON NPN EPITAXIAL TYPE

COMMON EMITTER y PARAMETER (TYPICAL VALUE) (Ta=25°C)

Frequency		45MHz			80MHz			100MHz			200MHz		
Conditions		VCE=6V			VCE=6V			VCE=6V			VCE=6V		
y Parameter		Ic=0.5mA	Ic=1mA	Ic=3mA	Ic=0.5mA	Ic=1mA	Ic=3mA	Ic=0.5mA	Ic=1mA	Ic=3mA	Ic=0.5mA	Ic=1mA	Ic=3mA
y _{ie} (mS)	g _{ie}	0.8	1.12	2.1	1.45	1.96	3.3	1.85	2.4	4.0	3.8	4.8	7.0
	b _{ie}	1.82	2.2	2.62	2.8	3.2	3.7	3.3	3.7	4.3	5.6	6.0	6.4
y _{oe} (mS)	g _{oe}	0.25	0.37	0.62	0.3	0.42	0.65	0.32	0.44	0.67	0.4	0.51	0.7
	b _{oe}	0.64	0.7	0.76	1.15	1.25	1.3	1.4	1.55	1.6	3.0	3.0	3.0
y _{fe} (mS)	g _{fe}	23.0	40.0	73.0	15.6	24.8	36.0	12.6	20.0	28.0	8.0	10.8	13.0
	-b _{fe}	7.2	16.0	48.0	9.2	20.0	42.6	9.0	20.0	50.0	9.0	19.4	33.0
y _{re} (mS)	-g _{re} *	—	—	—	—	—	—	—	—	—	—	—	—
	-b _{re}	0.35	0.35	0.35	0.64	0.64	0.64	0.8	0.8	0.8	1.7	1.7	1.7

Note * $\leq 0.05(\text{mS})$

COMMON BASE y PARAMETER, FREQUENCY 100MHz (TYPICAL VALUE)

Conditions		VCE=6V		
y Parameter		Ic=0.5mA	Ic=1mA	Ic=3mA
y _{ib} (mS)	g _{ib}	8.4	11.5	15.5
	-b _{ib}	1.6	6.0	15.0
y _{ob} (mS)	g _{ob}	0.3	0.37	0.53
	b _{ob}	1.4	1.47	1.58
y _{fb} (mS)	g _{fb}	14.5	20.5	32.0
	-b _{fb}	8.4	17.0	30.0
y _{rb} (mS)	-g _{rb} *	—	—	—
	-b _{rb}	0.58	0.64	0.66

Note * $\leq 0.05(\text{mS})$