2SC2206

Silicon NPN epitaxial planar type

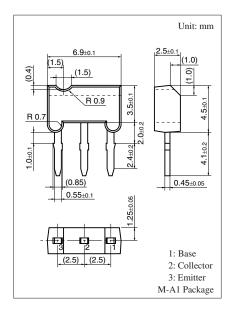
For high-frequency amplification Complementary to 2SA1254

■ Features

- Optimum for RF amplification of FM/AM radios
- High transition frequency f_T
- M type package allowing easy automatic and manual insertion as well as stand-alone fixing to the printed circuit board

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V _{CBO}	30	V	
Collector-emitter voltage (Base open)	V _{CEO}	20	V	
Emitter-base voltage (Collector open)	V_{EBO}	5	V	
Collector current	I_C	30	mA	
Peak collector current	I_{CP}	60	mA	
Collector power dissipation	P _C	400	mW	
Junction temperature	T_{j}	150	°C	
Storage temperature	T_{stg}	-55 to +150	°C	



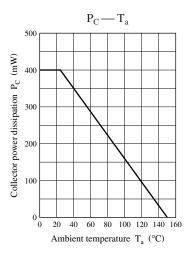
■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

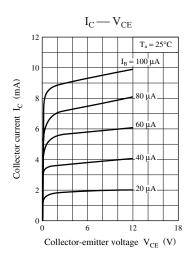
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_C = 10 \ \mu A, I_E = 0$	30			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	20			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10 \ \mu A, I_C = 0$	5			V
Base-emitter voltage	V_{BE}	$V_{CE} = 10 \text{ V}, I_{C} = 1 \text{ mA}$		0.7		V
Forward current transfer ratio *	h _{FE}	$V_{CE} = 10 \text{ V}, I_{C} = 1 \text{ mA}$	70		220	_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$		0.1		V
Transition frequency	f_T	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 200 \text{ MHz}$	150	300		MHz
Noise figure	NF	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 5 \text{ MHz}$		2.8	4	dB
Common-emitter reverse transfer capacitance	C _{re}	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 10.7 \text{ MHz}$			1.5	pF
Reverse transfer impedance	Z_{rb}	$V_{CB} = 10 \text{ V}, I_E = -1 \text{ mA}, f = 2 \text{ MHz}$			50	Ω

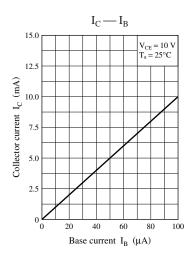
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

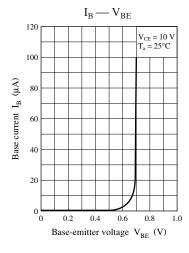
2. *: Rank classification

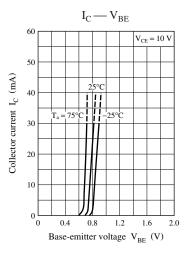
Rank	В	С
h_{FE}	70 to 140	110 to 220

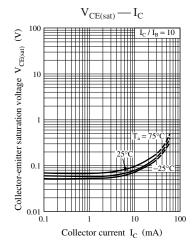


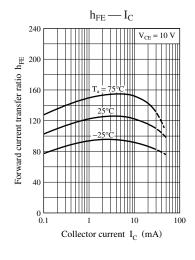


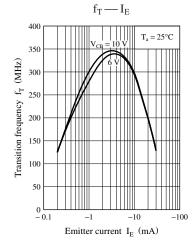


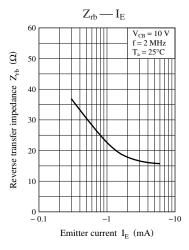


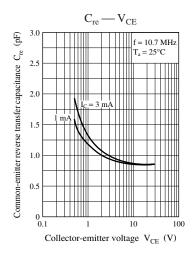


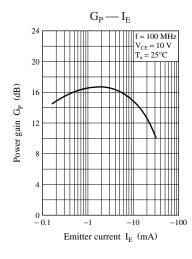


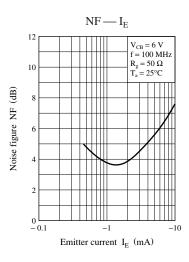


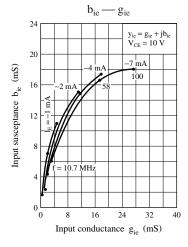


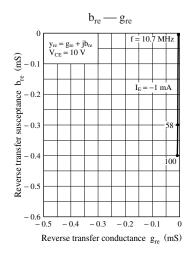


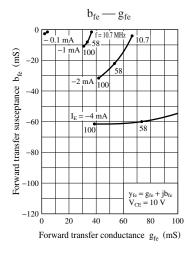


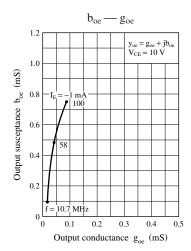












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