isc Silicon NPN RF Transistor 2SC4215

DESCRIPTION

- Low Noise
  NF = 2 dB TYP., @ f = 100MHz
- Small Feedback Capacitance
  C_{re} = 0.55pF TYP.

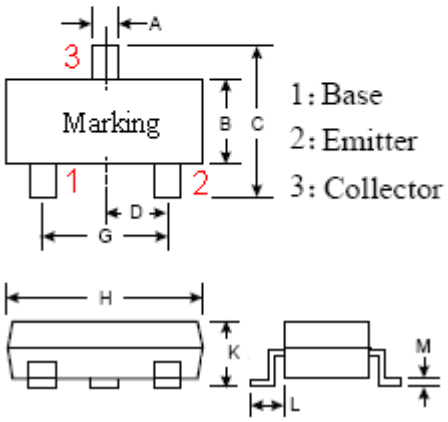
APPLICATIONS

- High frequency amplifier applications
- FM, RF ,MIX, IF amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current-Continuous	20	mA
I_B	Base Current-Continuous	4	mA
P_C	Collector Power Dissipation @T_C=25℃	0.1	W
T_J	Junction Temperature	125	℃
T_{stg}	Storage Temperature Range	-55~125	℃

SOT-323 package



DIM	mm	
	MIN	MAX
A	0.30	0.40
B	1.15	1.35
C	2.00	2.40
D	0.65	
H	1.80	2.20
K	0.80	1.00
M	0.10	0.25

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{CBO}	Collector Cutoff Current	V_{CB}= 40V; I_E= 0			0.1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 4V; I_C= 0			0.5	μA
h_{FE}	DC Current Gain	I_C= 1mA ; V_{CE}= 6V	40		200	
f_T	Current-Gain—Bandwidth Product	I_C= 1mA ; V_{CE}= 6V	260	550		MHz
C_{re}	Feed-Back Capacitance	V_{CB}= 10V;f= 1.0MHz		0.55		pF
$r_{bb'} \cdot C_C$	Base Time Constant	I_E= -1mA ; V_{CB}= 6V; f= 30MHz			25	ps
G_{pe}	Power Gain	I_E= -1mA ; V_{CC}= 6V;f= 100MHz	17	23		dB
NF	Noise Figure	I_E= -1mA ; V_{CC}= 6V;f= 100MHz		2	5	dB

◆ **h_{FE} Classification**

Class	R	O	Y
h_{FE}	40-80	70-140	100-200

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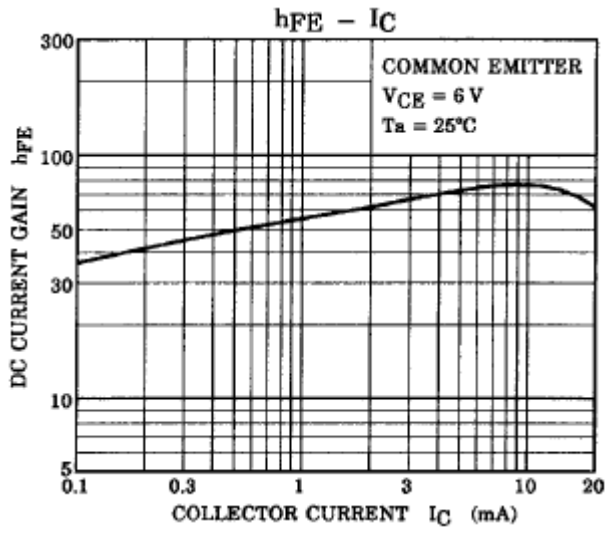

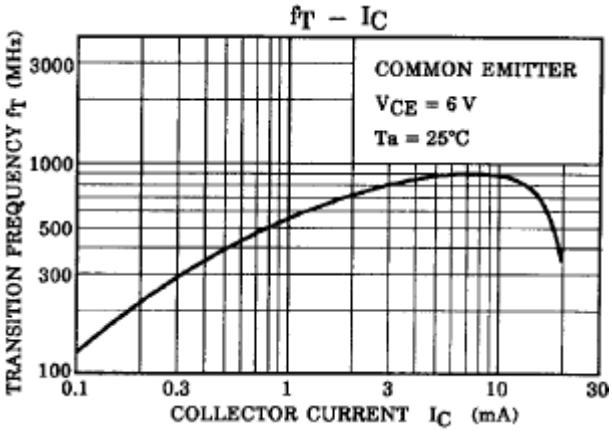

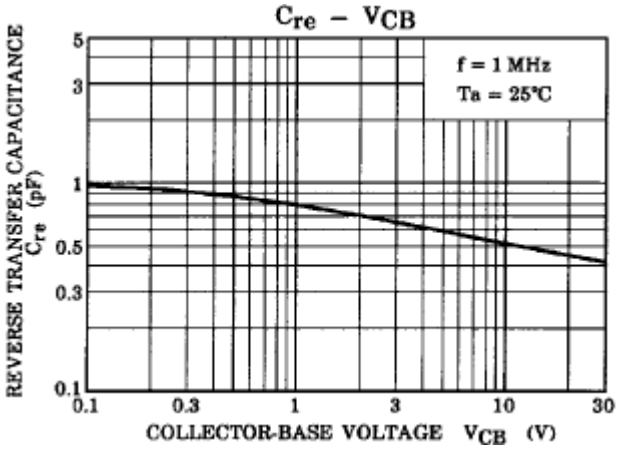

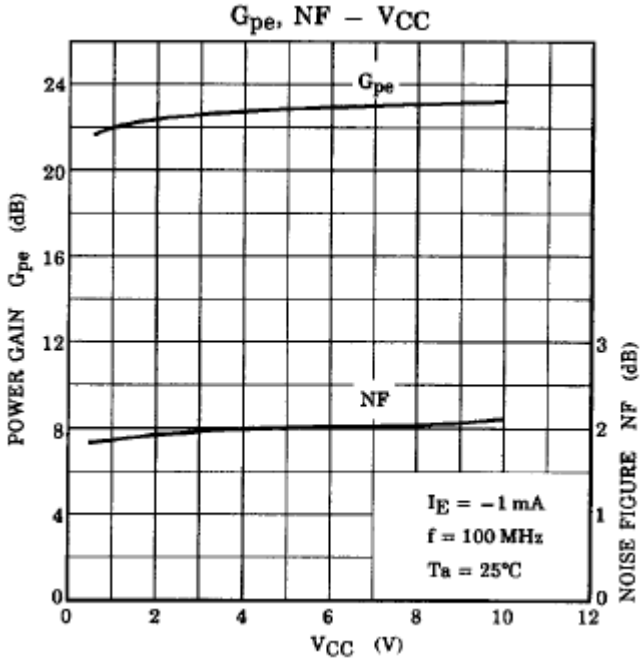

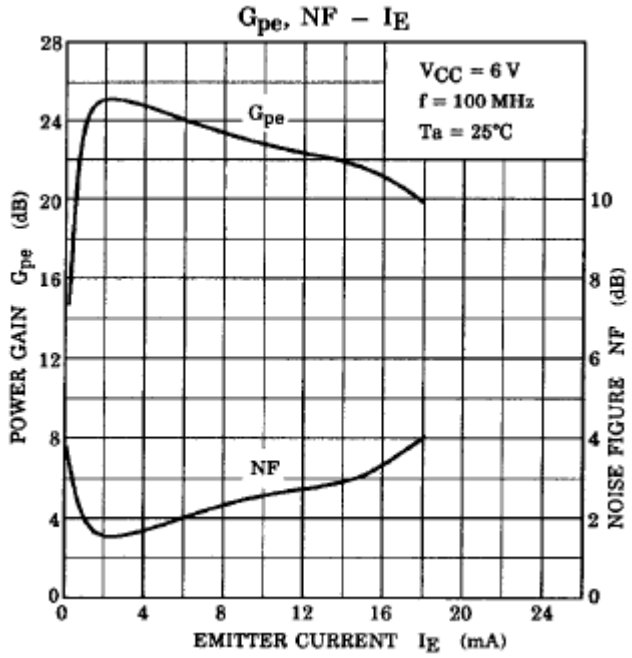

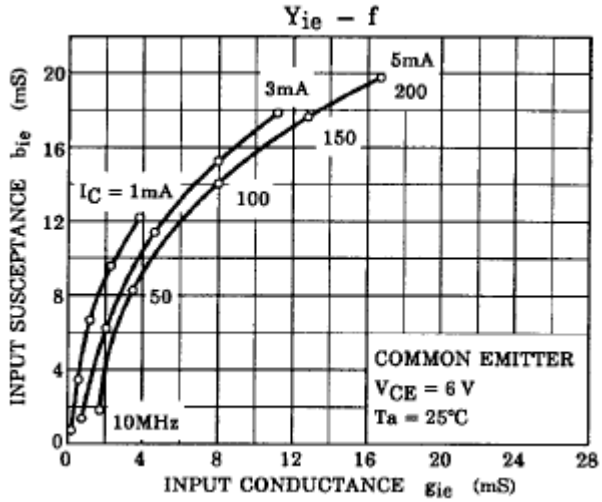

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