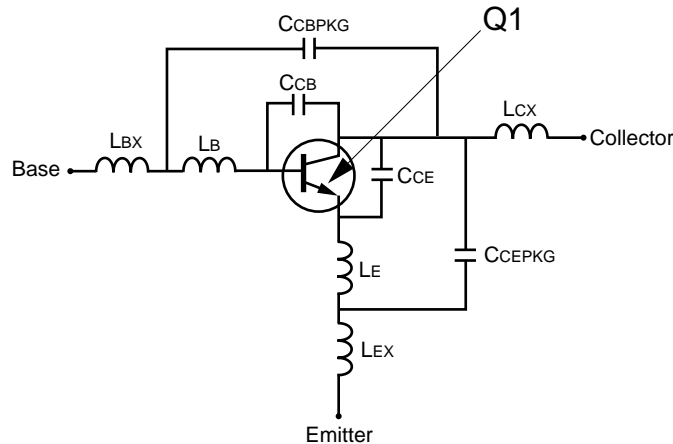


SCHEMATIC



BJT NONLINEAR MODEL PARAMETERS (1)

Parameters	Q1	Parameters	Q1
IS	239.6e-18	MJC	0.223
BF	125	XCJC	0
NF	0.9854	CJS	0
VAF	12	VJS	0.75
IKF	0.200	MJS	0
ISE	1.933e-6	FC	0.5
NE	50	TF	10e-12
BR	18.25	XTF	25
NR	0.9771	VTF	0.40
VAR	10	ITF	0.13
IKR	11.81e-3	PTF	43.1
ISC	1.55e-18	TR	0.3e-9
NC	1.860	EG	1.11
RE	0.870	XTB	0
RB	4.0	XTI	3
RBM	5.2	KF	0
IRB	1e-6	AF	1
RC	4.635		
CJE	1.2e-12		
VJE	0.77		
MJE	0.4844		
CJC	0.4e-12		
VJC	0.5275		

(1) Gummel-Poon Model

UNITS

Parameter	Units
time	seconds
capacitance	farads
inductance	henries
resistance	ohms
voltage	volts
current	amps

ADDITIONAL PARAMETERS

Parameters	681M03
CCB	0.07e-12
CCE	0.01e-12
LB	0.3e-9
LE	0.8e-9
CCBPKG	0.08e-12
CCEPKG	0.08e-12
LBX	0.12e-9
LCX	0.10e-9
LEX	0.12e-9

MODEL RANGE

Frequency: 0.1 to 5.0 GHz
 Bias: VCE = 2.5 V to 8 V, Ic = 0.3 mA to 20 mA
 Date: 12/98
 hFE = 124 at VCE = 3 V, Ic = 7 mA