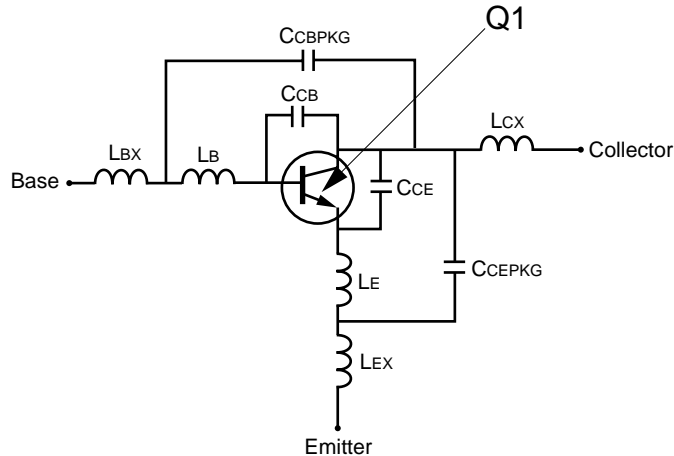


SCHEMATIC



BJT NONLINEAR MODEL PARAMETERS(1)

Parameters	Q1	Parameters	Q1
IS	302.3e-18	MJC	0.53
BF	104	XCJC	0.27
NF	1.038	CJS	0
VAF	10	VJS	0.75
IKF	0.370	MJS	0
ISE	1e-6	FC	0.37
NE	31.19	TF	5e-12
BR	17.54	XTF	8
NR	1.023	VTF	0.06
VAR	30	ITF	1.0
IKR	8.369e-3	PTF	69.1
ISC	81.93e-12	TR	1.e-9
NC	4.986	EG	1.11
RE	0.80	XTB	0
RB	11.10	XTI	3
RBM	2.46	KF	0
IRB	17e-3	AF	1
RC	4.477		
CJE	0.415e-12		
VJE	0.68		
MJE	0.53		
CJC	0.102e-12		
VJC	0.8		

(1) Gummel-Poon Model

UNITS

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

ADDITIONAL PARAMETERS

Parameters	687M03
CCB	0.26e-12
CCE	0.19e-12
LB	0.4e-9
LE	0.7e-9
CCBPKG	0.08e-12
CCEPKG	0.08e-12
LBX	0.12e-9
LCX	0.10e-9
LEX	0.12e-9

MODEL TEST CONDITIONS

Frequency: 0.1 to 5.0 GHz
 Bias: VCE = 0.5 V to 2.5 V, IC = 0.5 mA to 30 mA
 Date: 11/98
 hFE = 108 at 2 V, 20 mA