

NEC

NPN SILICON HIGH
FREQUENCY TRANSISTOR

UPA800T

UPA800T NONLINEAR MODEL

BJT NONLINEAR MODEL PARAMETERS(1)

Parameters	Q1, Q2	Parameters	Q1, Q2
IS	3.84e-16	MJC	0.5
BF	124.9	XCJC	0
NF	1.04	CJS	0
VAF	11.87	VJS	0.75
IKF	0.027	MJS	0
ISE	1e-14	FC	0.5
NE	2.17	TF	10e-12
BR	1.0	XTF	18.0
NR	1.05	VTF	19.12
VAR	Infinity	ITF	0.082
IKR	Infinity	PTF	0
ISC	0	TR	0.635e-9
NC	2.0	EG	1.11
RE	0.6	XTB	0
RB	17.88	XTI	3
RBM	1.02	KF	0
IRB	4.01e-4	AF	1
RC	10.46		
CJE	0.358e-12		
VJE	0.711		
MJE	0.5		
CJC	0.21e-12		
VJC	0.791		

UNITS

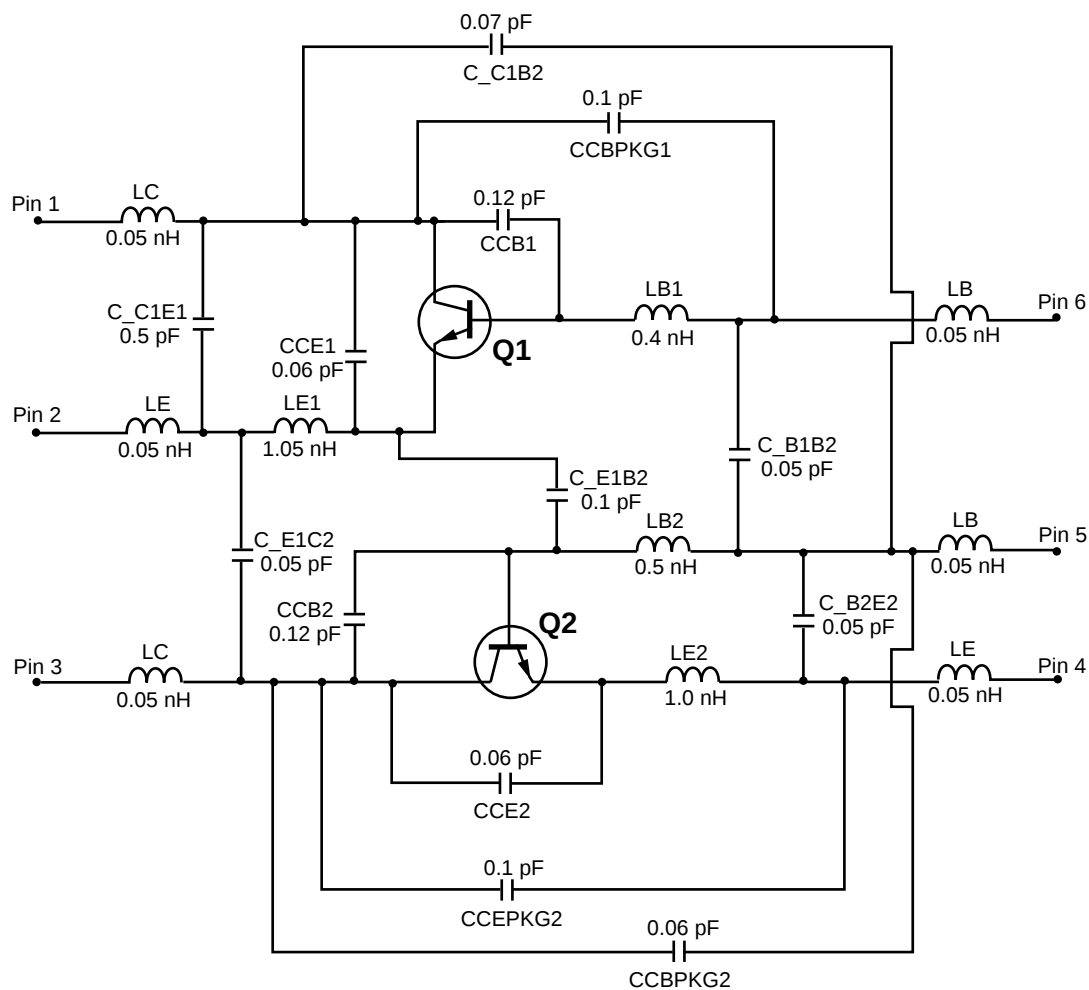
Parameter	Units
time	seconds
capacitance	farads
inductance	henries
resistance	ohms
voltage	volts
current	amps

MODEL RANGE
Frequency: 0.1 to 3.0 GHz
Bias: VCE =0.5 V to 5 V, IC = 0.5 mA to 10 mA
Date: 10/98

(1) Gummel-Poon Model

UPA800T NONLINEAR MODEL

SCHEMATIC



MODEL RANGE

Frequency: 0.1 to 3.0 GHz

Bias: $V_{CE} = 0.5$ V to 5 V, $I_C = 0.5$ mA to 10 mA

Date: 10/98

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