

BJT NONLINEAR MODEL PARAMETERS ⁽¹⁾

Parameters	Q1, Q2	Parameters	Q1, Q2
IS	8e-17	MJC	0.53
BF	128	XCJC	0.27
NF	1	CJS	0
VAF	17	VJS	0.75
IKF	0.18	MJS	0
ISE	3.3e-15	FC	0.37
NE	1.48	TF	6e-12
BR	9.05	XTF	11.9
NR	1.05	VTF	9.55
VAR	4.3	ITF	1.78
IKR	0.009	PTF	69.1
ISC	4e-15	TR	1e-9
NC	1.5	EG	1.11
RE	0.8	XTB	0
RB	11.1	XTI	3
RBM	2.46	KF	0
IRB	0.017	AF	1
RC	7.5		
CJE	0.415e-12		
VJE	0.68		
MJE	0.53		
CJC	0.102e-12		
VJC	0.29		

(1) Gummel-Poon Model

Note:

This nonlinear model utilized the latest data available.
See our Design Parameter Library at www.cel.com for this data.

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 2 V, Ic = 0.5 mA to 10 mA
Date: 10/98

