

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER /STANDARD
PART NUMBER: 11EQ04
MANUFACTURER: NIEC

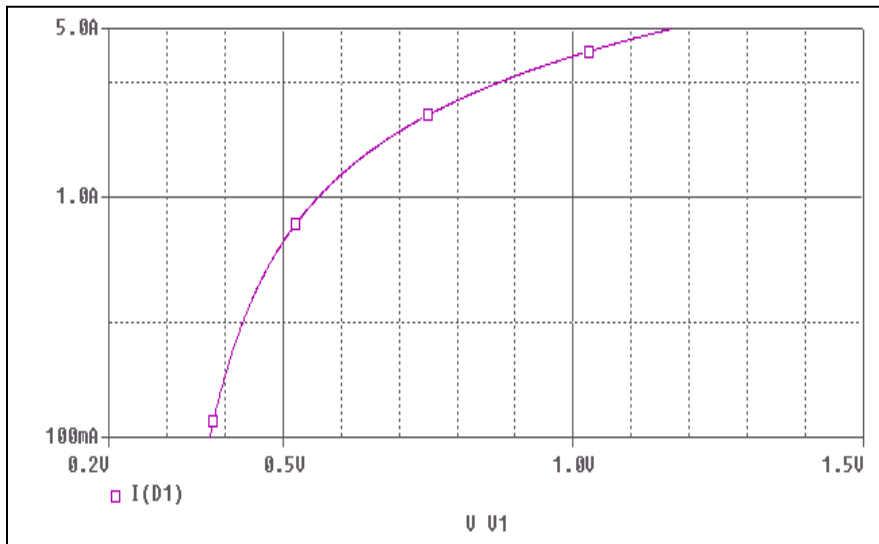


Bee Technologies Inc.

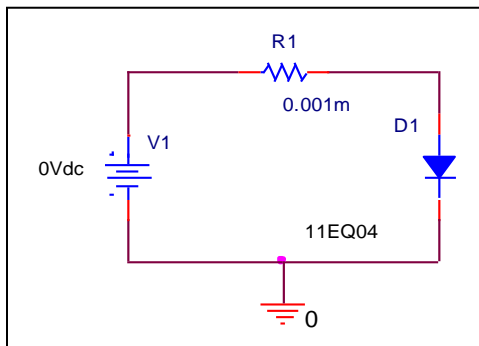
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a positive value)
IBV	Reverse Breakdown Current(a positive value)
TT	Transit Time
EG	Energy-band Gap

Forward Current Characteristic

Circuit Simulation Result

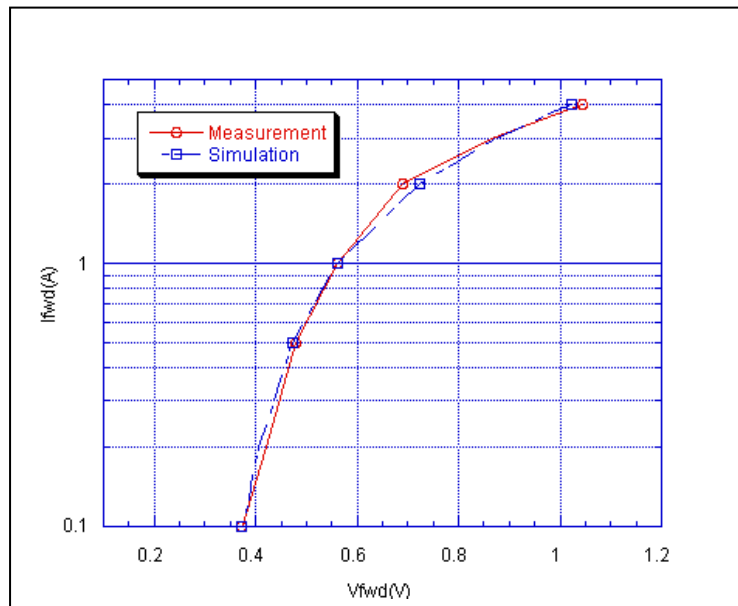


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

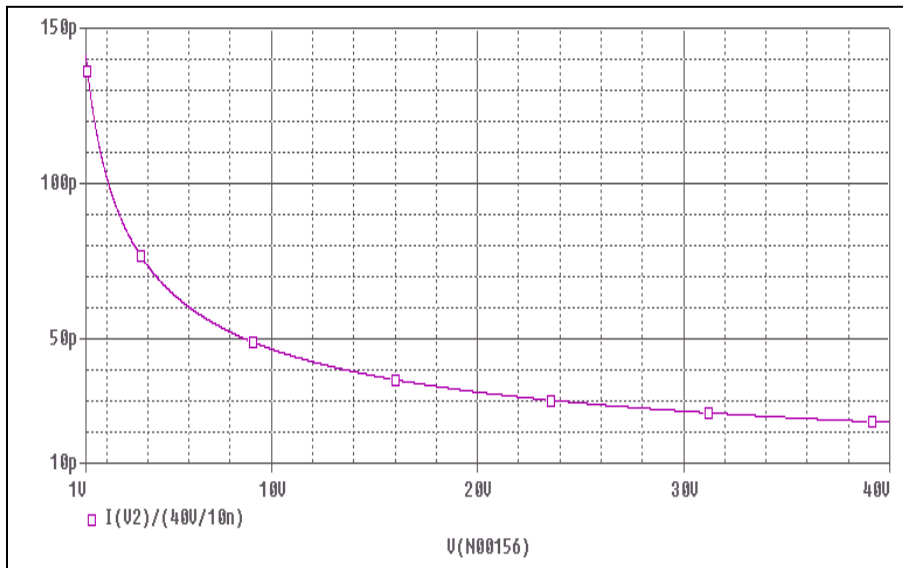


Simulation Result

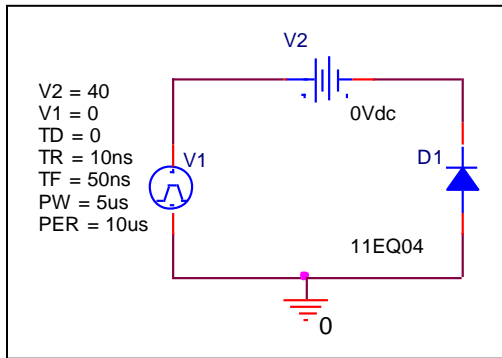
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.37	0.37	-0.03
0.2	0.42	0.41	-3.33
0.5	0.48	0.47	-1.67
1	0.56	0.56	-0.89
2	0.69	0.72	4.64
3	0.87	0.87	0.92
4	1.05	1.02	-2.11

Junction Capacitance Characteristic

Circuit Simulation Result

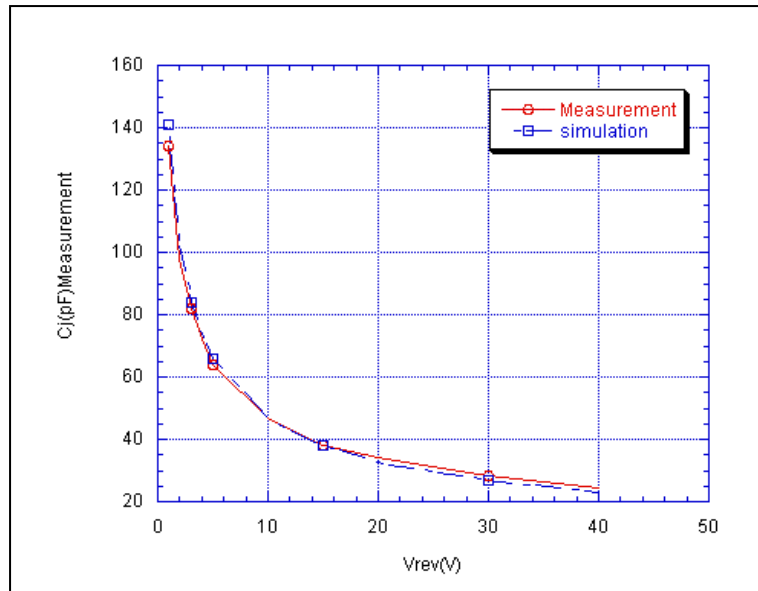


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Measurement	%Error
1	134.00	139.47	4.08
2	98.00	102.13	4.21
3	82.00	84.09	2.55
4	72.00	73.44	2.00
5	64.00	66.04	3.19
10	47.00	46.74	-0.55
15	38.00	38.08	0.21
20	34.00	32.89	-3.26
30	28.20	26.85	-4.77
40	24.30	23.16	-4.69