

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDAD
PART NUMBER: 11DQ03L
MANUFACTURER: NIEC

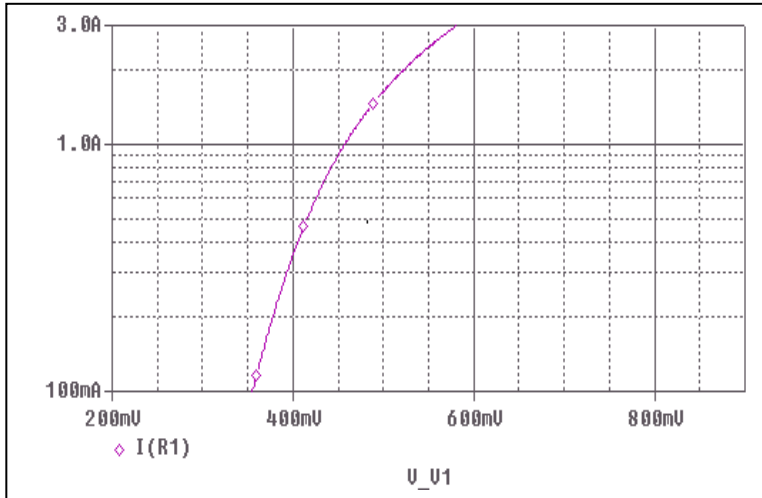


Bee Technologies Inc.

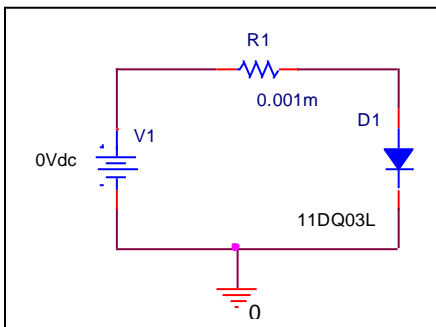
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

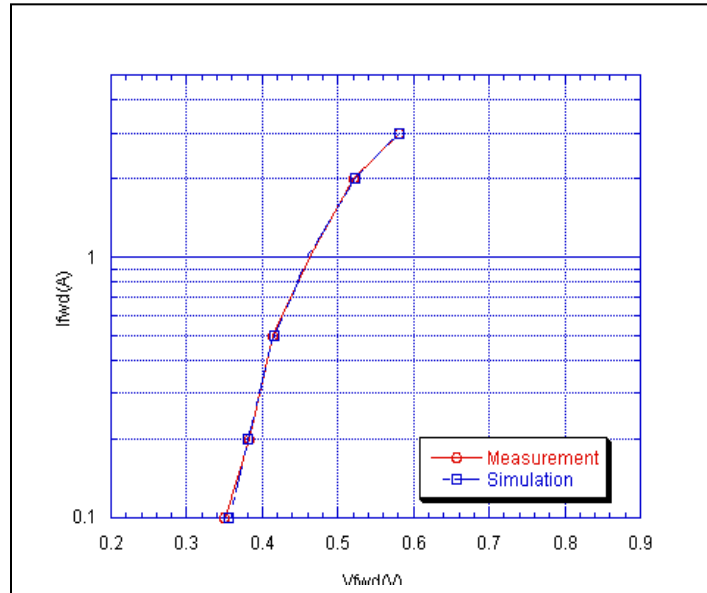


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

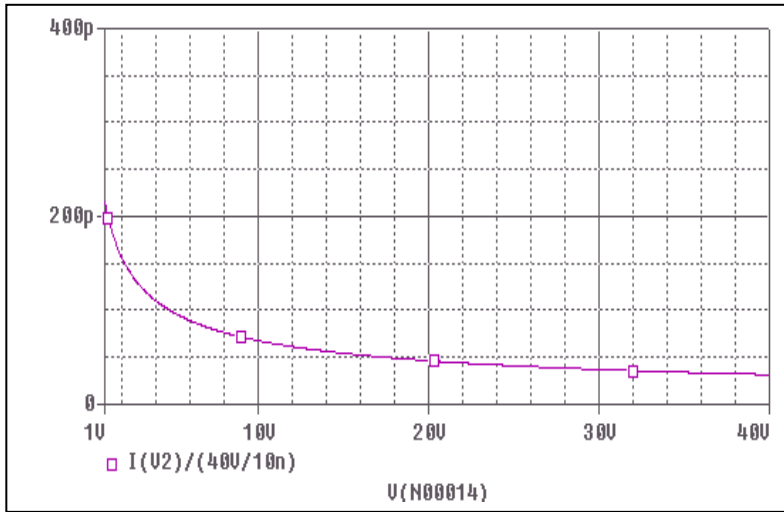


Simulation Result

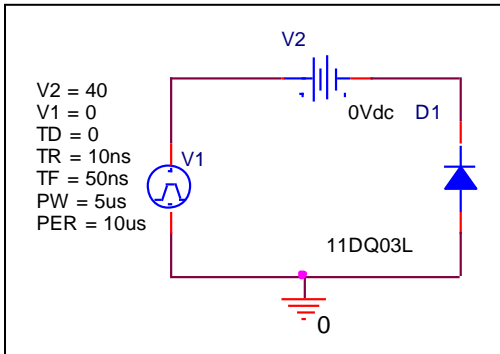
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.35	0.36	1.43
0.2	0.38	0.38	-0.78
0.5	0.41	0.42	0.24
1	0.46	0.46	-0.87
2	0.52	0.52	0.58
3	0.58	0.58	-0.17

Junction Capacitance Characteristic

Circuit Simulation Result

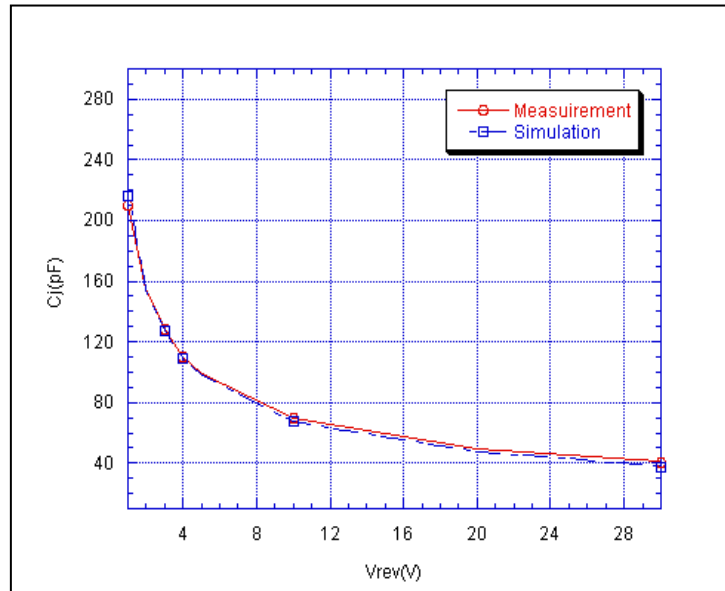


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	210.00	215.69	2.71
2	155.00	154.81	-0.12
3	128.00	127.45	-0.43
4	110.00	109.51	-0.45
5	99.00	98.19	-0.82
10	70.00	67.32	-3.83
20	49.00	47.44	-3.19