Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTTKY RECTIFIER / STANDARD
PART NUMBER: 11EQS09
MANUFACTURER: NIEC
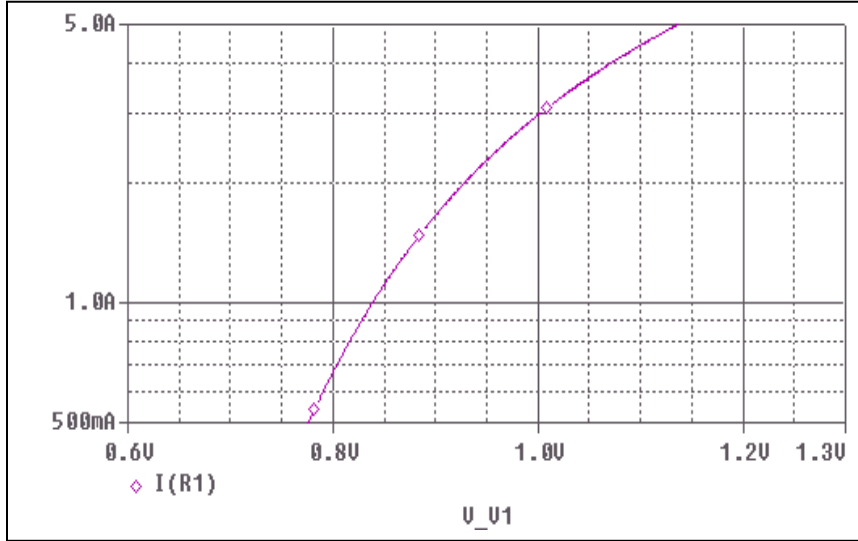
Bee Technologies Inc.
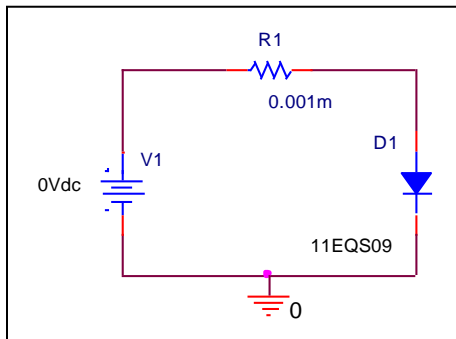
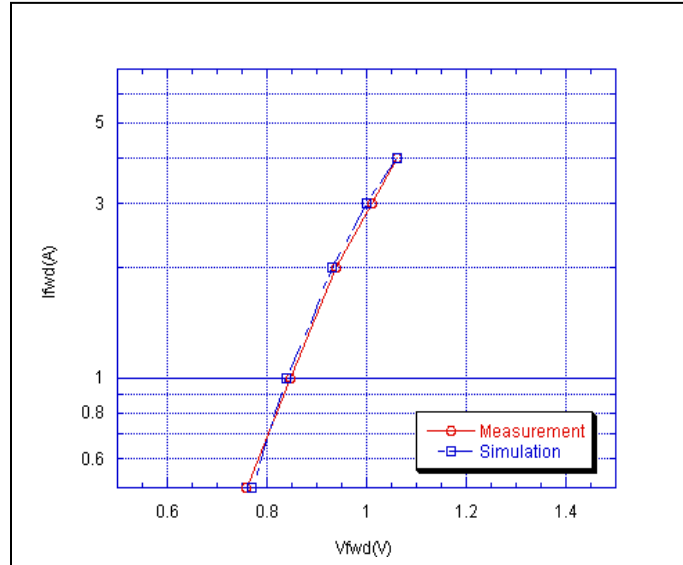| PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a positive value)
IBV	Reverse Breakdown Current(a positive value)
TT	Transit Time
EG	Energy-band Gap

Forward Current Characteristic

Comparison Graph

Simulation Result

Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.5	0.759	0.770	1.45
1	0.848	0.840	-0.94
2	0.940	0.931	-0.96
3	1.010	1.000	-0.99
4	1.060	1.055	-0.47

Junction Capacitance Characteristic

Circuit Simulation Result

Evaluation Circuit

Comparison Graph

Circuit Simulation Result

Simulation Result

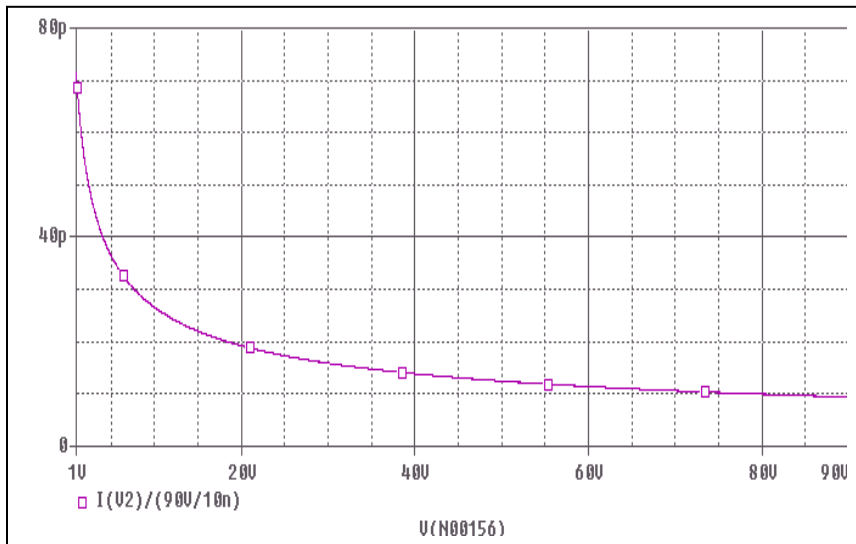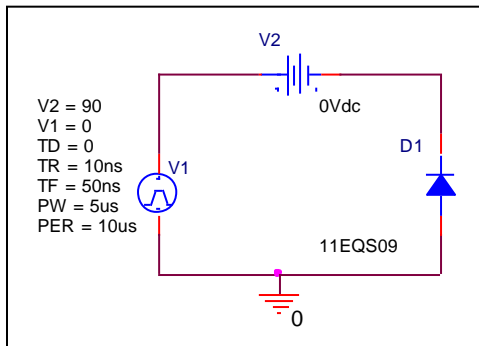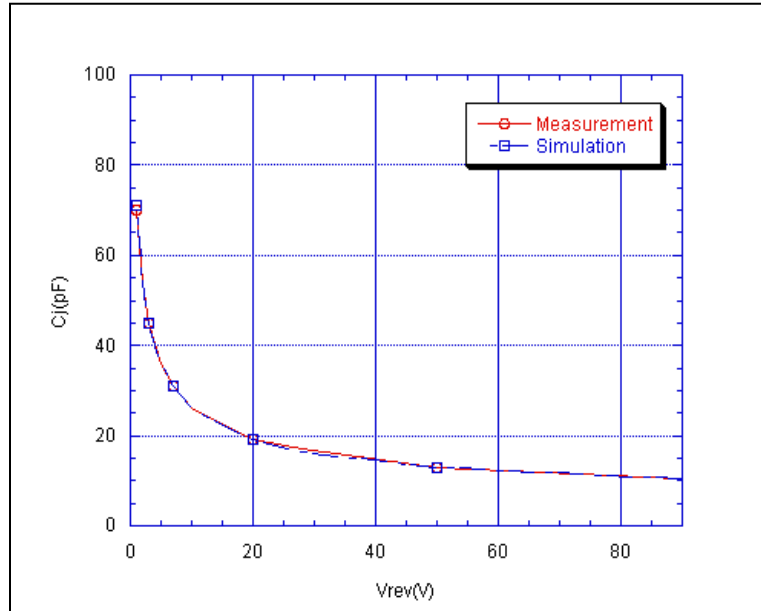| Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	70.000	71.000	1.43
2	54.000	53.778	-0.41
3	45.000	44.889	-0.25
5	36.000	35.900	-0.28
7	31.000	30.856	-0.47
10	26.000	25.667	-1.28
20	19.300	19.279	-0.11
28	17.00	16.40	-3.53
50	13.00	12.99	-0.11
90	10.00	9.98	-0.24