

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER/ STANDARD
PART NUMBER: 11EQS10
MANUFACTURER: NIEC

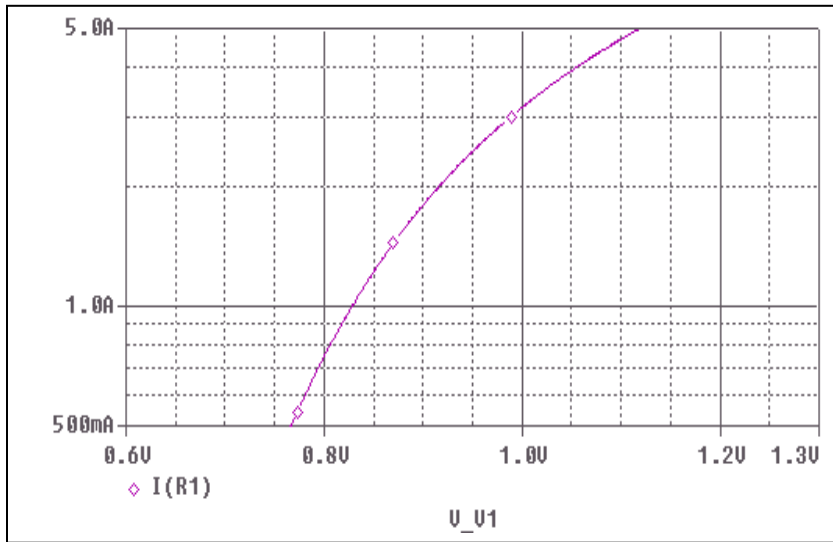


Bee Technologies Inc.

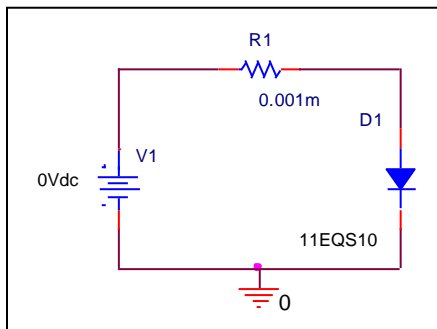
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

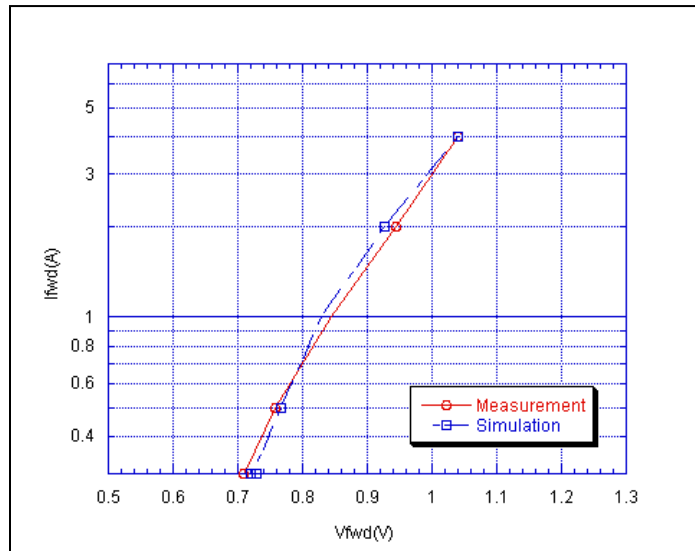


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

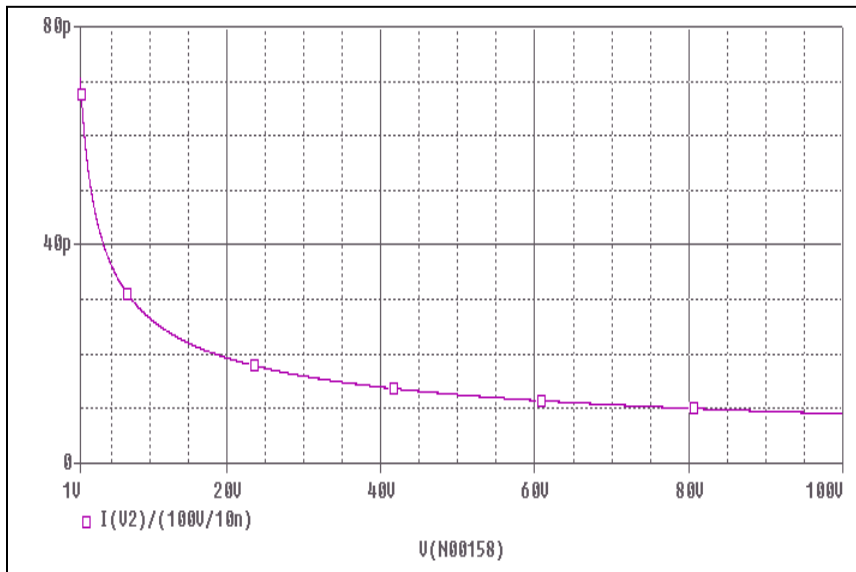


Simulation Result

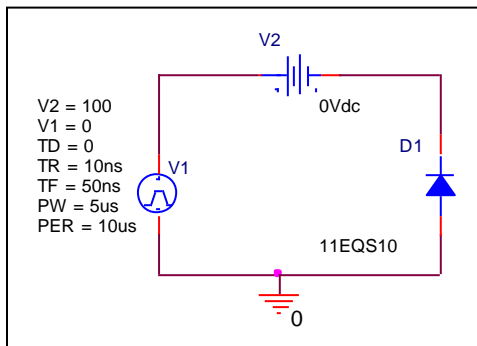
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.3	0.710	0.720	1.41
0.5	0.758	0.766	1.06
1	0.844	0.829	-1.78
2	0.944	0.926	-1.91
4	1.040	1.030	-0.96

Junction Capacitance Characteristic

Circuit Simulation Result

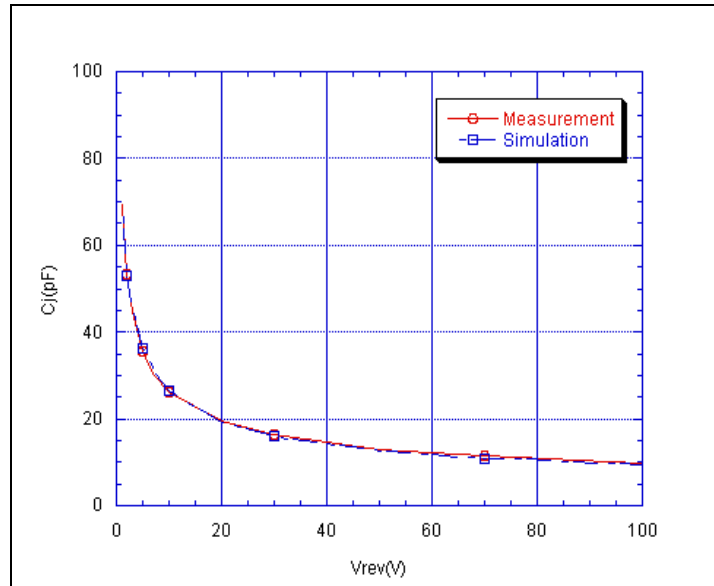


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	69.500	69.444	-0.08
2	53.200	53.000	-0.38
3	44.700	45.500	1.79
5	35.700	36.200	1.40
7	30.500	31.400	2.95
10	26.300	26.400	0.38
20	19.500	19.300	-1.03
30	16.50	16.10	-2.42
50	12.90	12.60	-2.33
70	11.40	10.90	-4.39
100	9.52	9.20	-3.36