

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER/ STANDARD
PART NUMBER: 11EQ10
MANUFACTURER: NIEC

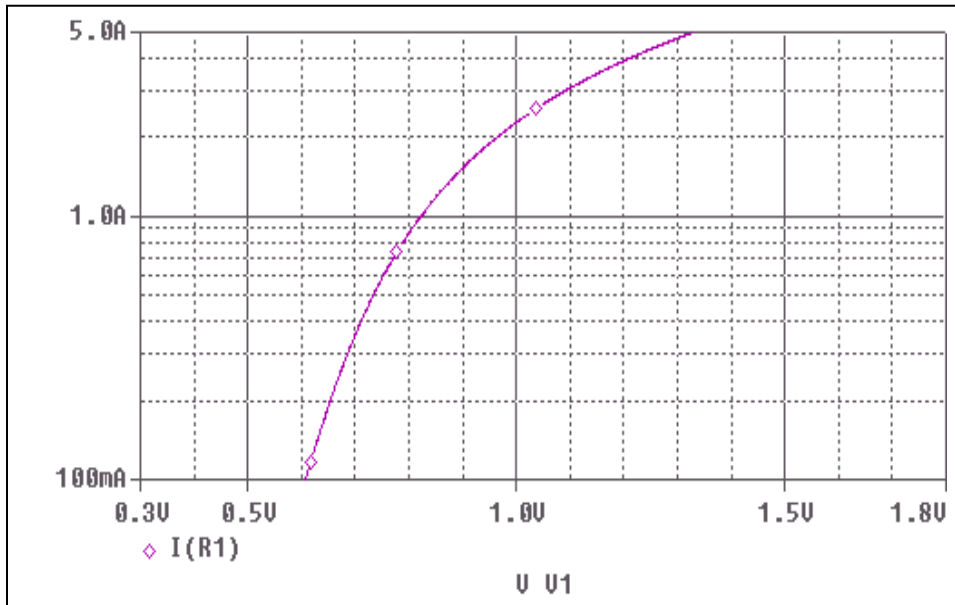


Bee Technologies Inc.

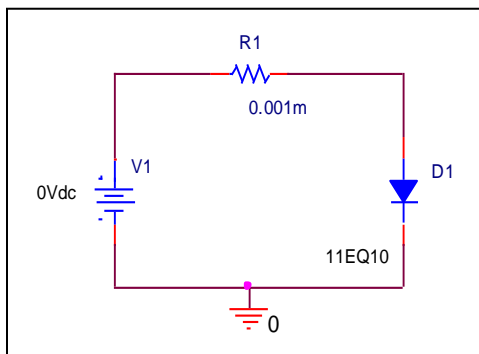
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

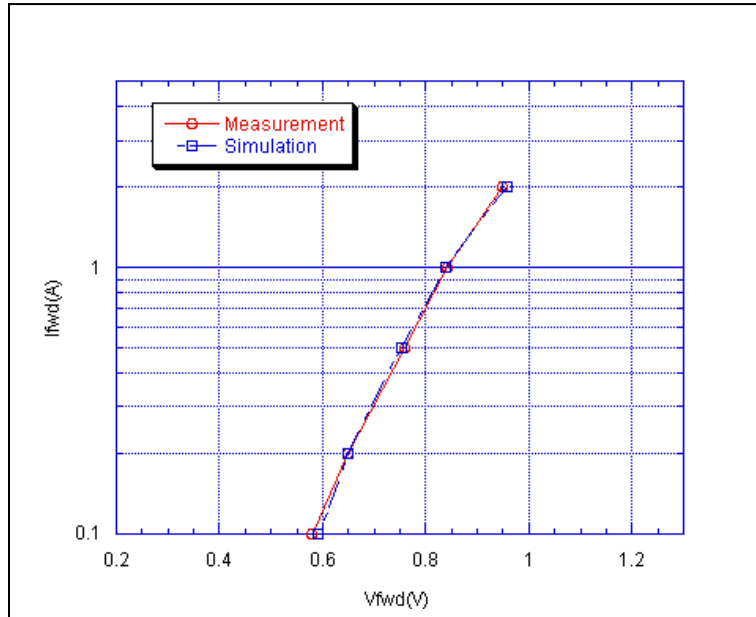


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

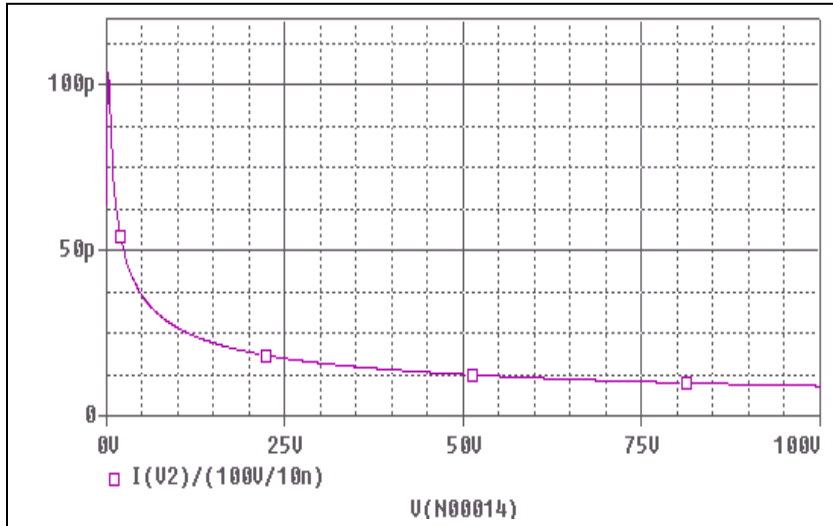


Simulation Result

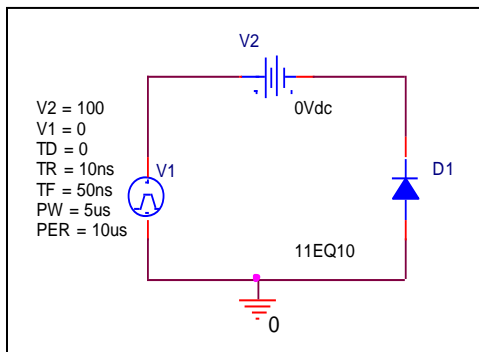
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.58	0.59	1.72
0.2	0.65	0.65	-0.31
0.5	0.76	0.75	-0.92
1	0.84	0.84	-0.36
2	0.95	0.96	0.84

Junction Capacitance Characteristic

Circuit Simulation Result

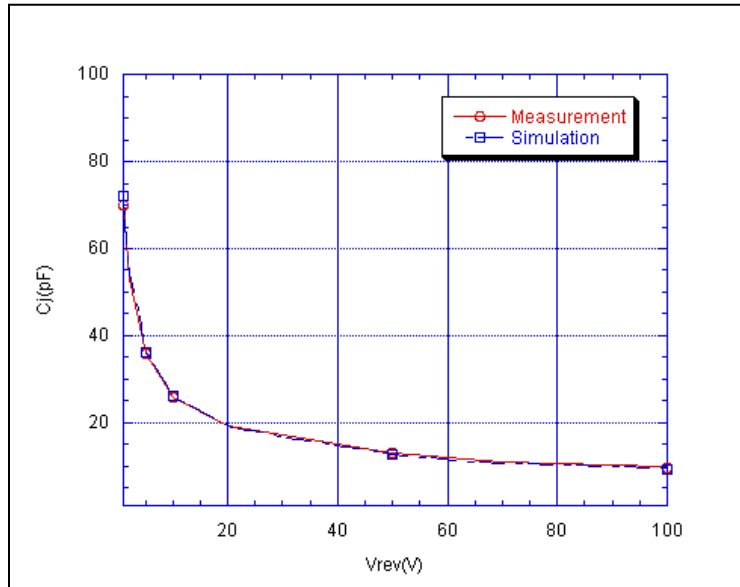


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	70.00	72.10	3.00
2	53.00	54.10	2.08
5	36.00	36.10	0.28
10	26.00	26.11	0.42
20	19.40	19.20	-1.03
50	13.00	12.80	-1.54
70	11.00	10.80	-1.82
100	9.60	9.40	-2.08