

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: 11EQS04
MANUFACTURER: NIEC

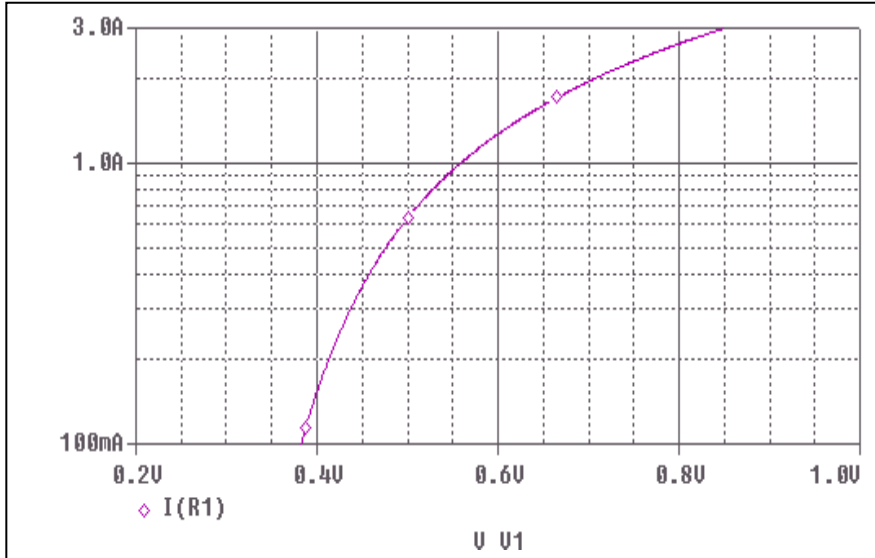


Bee Technologies Inc.

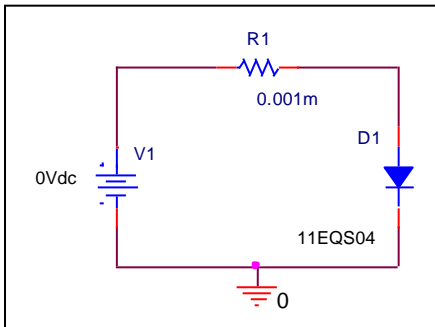
P Spice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

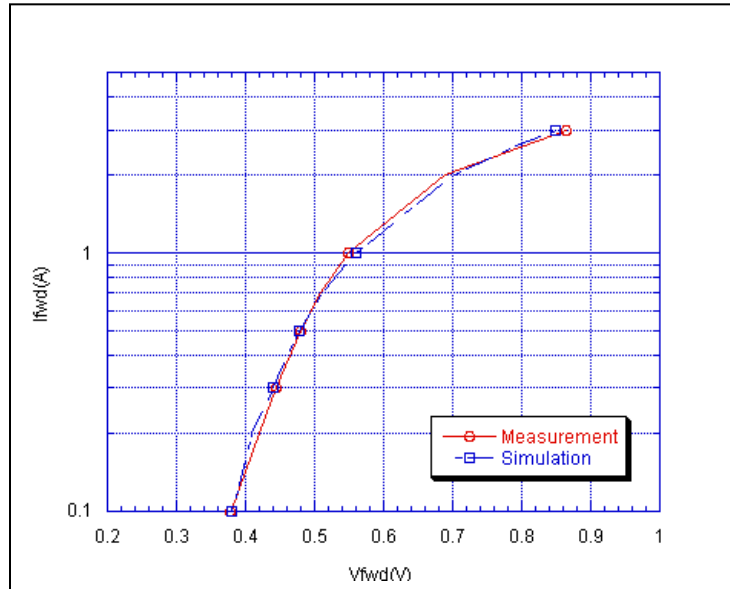


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

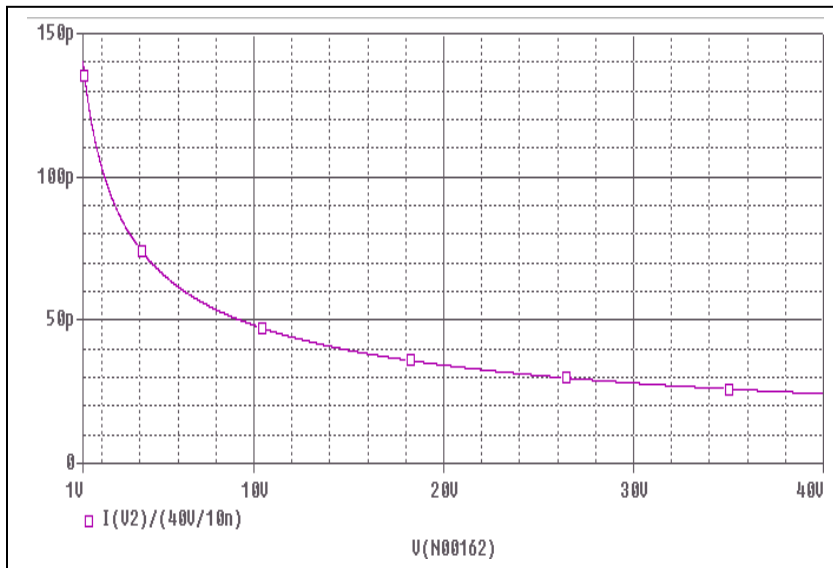


Simulation Result

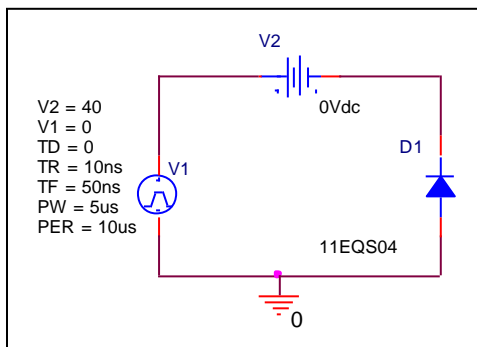
$I_{fwd}(A)$	$V_{fwd}(V)$ Measurement	$V_{fwd}(V)$ Simulation	%Error
0.1	0.378	0.380	0.53
0.2	0.420	0.410	-2.38
0.3	0.445	0.441	-0.90
0.5	0.481	0.478	-0.62
0.7	0.510	0.511	0.20
1	0.550	0.559	1.64
2	0.690	0.700	1.45

Junction Capacitance Characteristic

Circuit Simulation Result

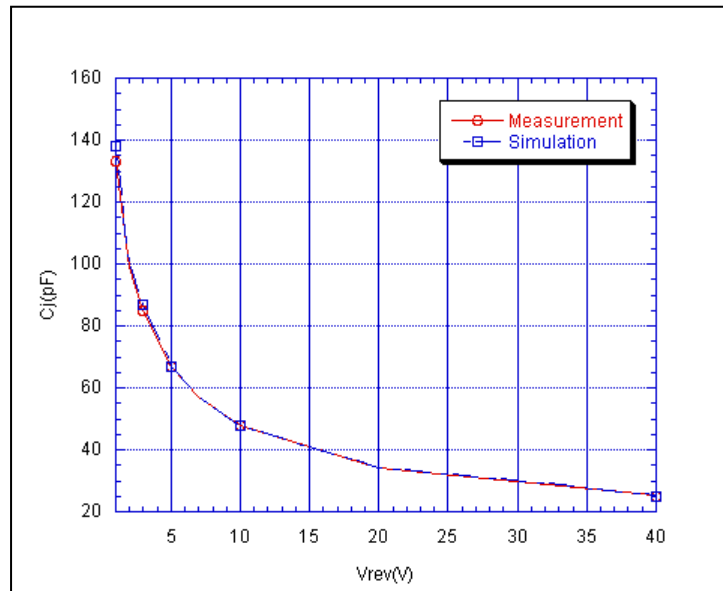


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	133.000	138.000	3.76
2	99.000	100.000	1.01
3	85.000	87.000	2.35
5	67.000	66.989	-0.02
7	57.000	56.855	-0.25
10	48.000	47.653	-0.72
20	34.000	33.878	-0.36
40	25.00	24.90	-0.41