

Device Modeling Report

COMPONENTS:

DIODE/ SCHOOTKY RECTIFIER / STANDARD

PART NUMBER: 11EQ06

MANUFACTURER: NIEC

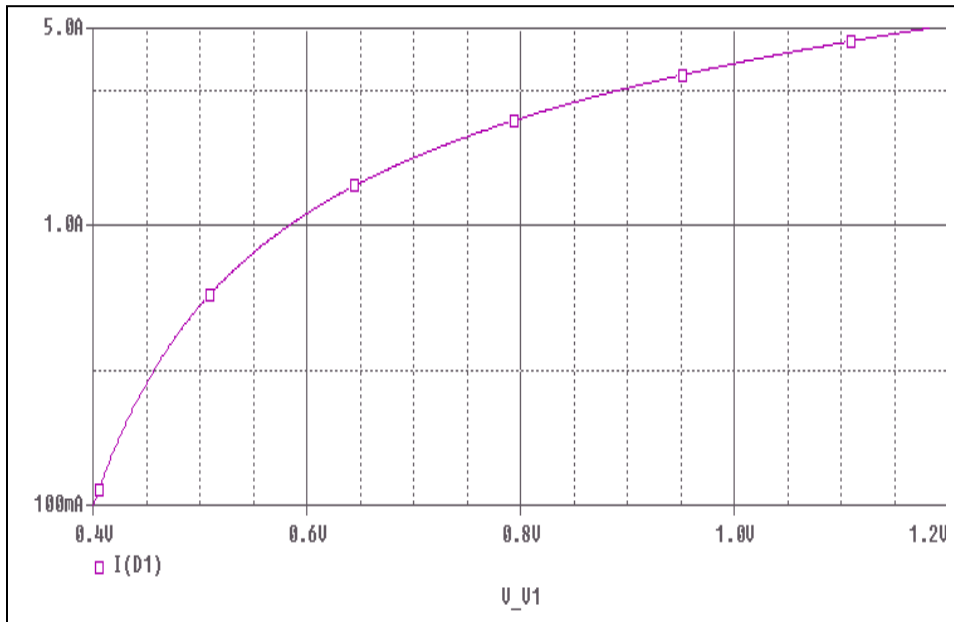


Bee Technologies Inc.

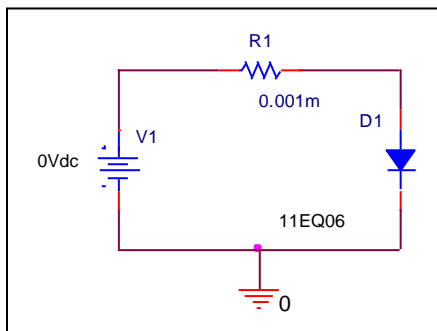
P Spice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

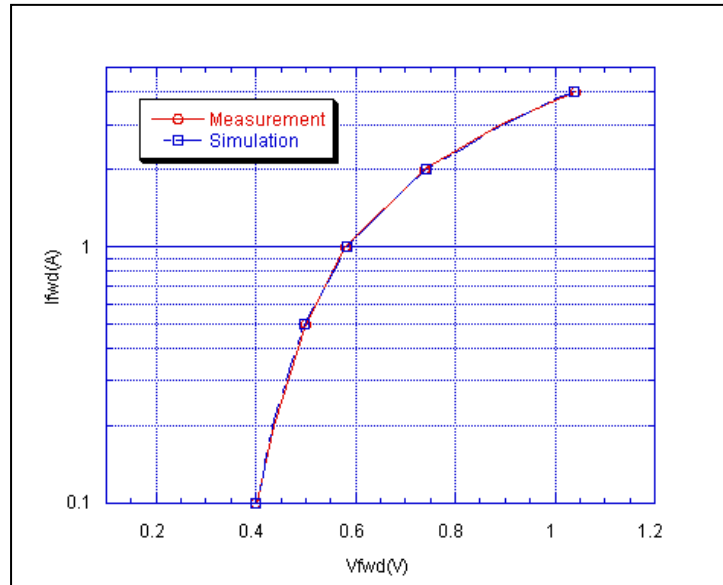


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

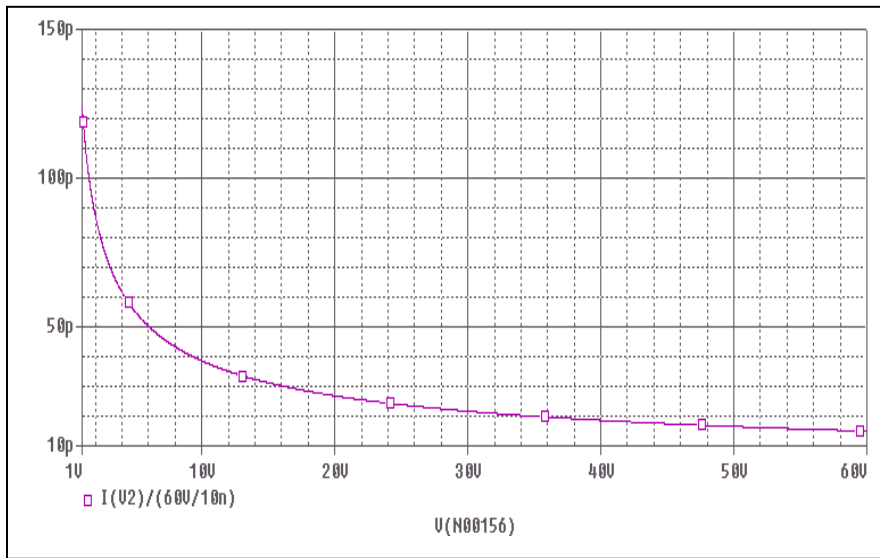


Simulation Result

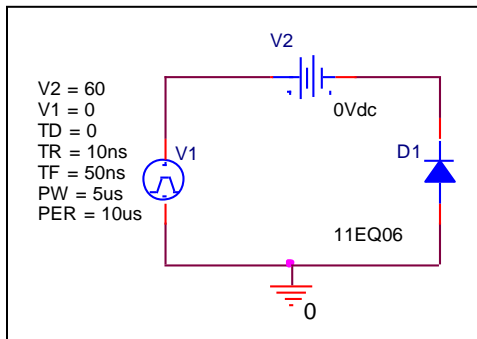
$I_{fwd}(A)$	$V_{fwd}(V)$ Measurement	$V_{fwd}(V)$ Simulation	%Error
0.1	0.40	0.40	-0.50
0.2	0.44	0.43	-0.69
0.5	0.50	0.50	-0.60
1	0.58	0.58	0.69
2	0.74	0.74	0.27
3	0.89	0.89	0.22
4	1.04	1.04	-0.19

Junction Capacitance Characteristic

Circuit Simulation Result

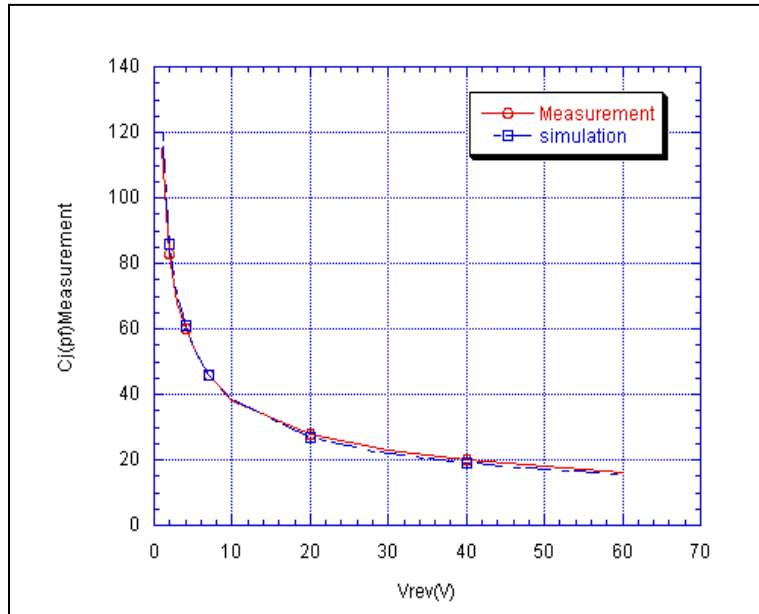


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Measurement	%Error
1	115.00	120.46	4.75
2	83.00	86.00	3.61
3	68.00	71.00	4.41
4	60.00	61.00	1.67
5	54.00	53.99	-0.02
7	46.00	45.87	-0.29
10	38.00	37.59	-1.08
20	28.00	26.81	-4.25
30	23.00	22.00	-4.35
40	20.00	19.06	-4.72
60	16.08	15.56	-3.26