

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANARD
PART NUMBER: EP10LA03
MANUFACTURER: NIEC

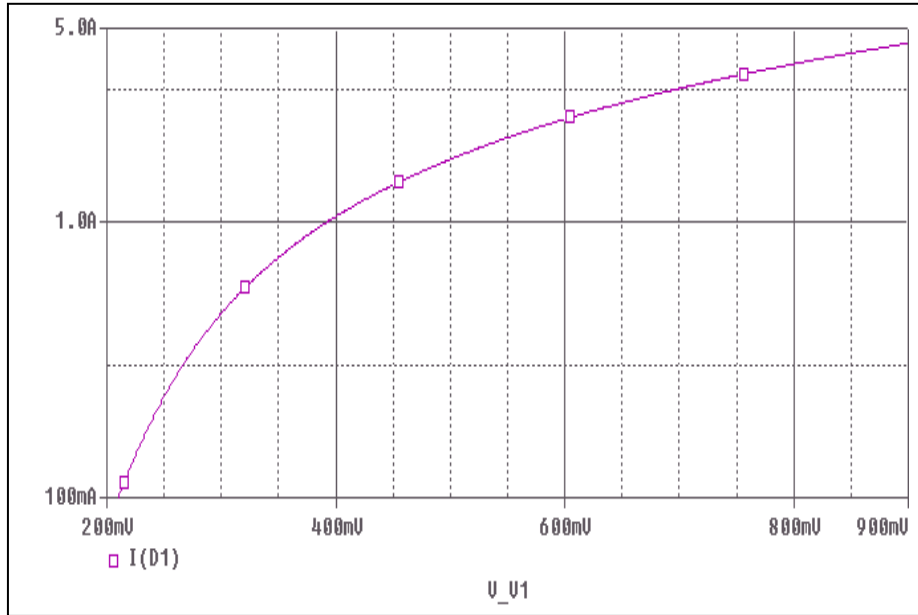


Bee Technologies Inc.

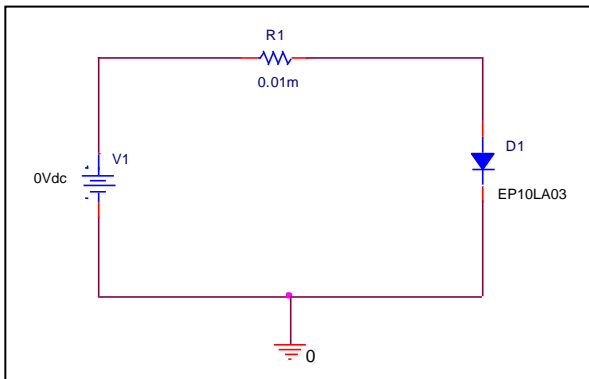
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

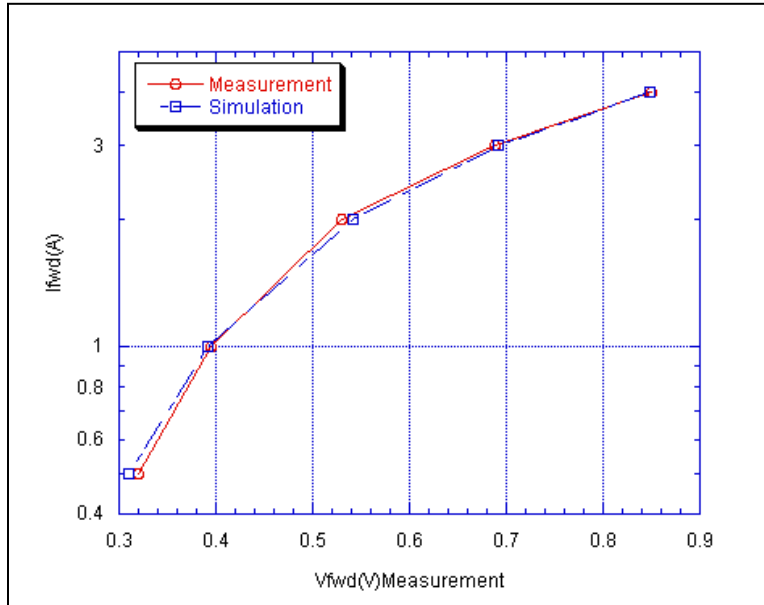


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

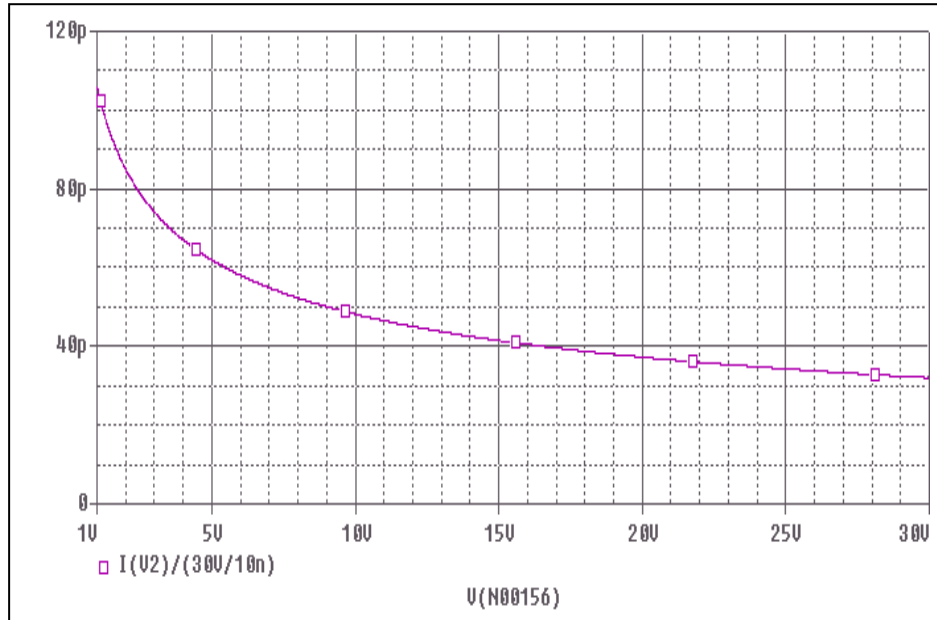


Simulation Result

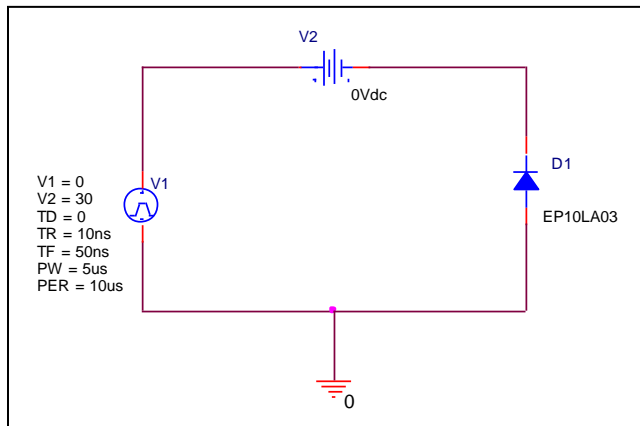
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.5	0.320	0.310	-3.13
1	0.395	0.391	-1.01
2	0.530	0.541	2.08
3	0.688	0.691	0.44
4	0.850	0.848	-0.24

Capacitance Characteristic

Circuit Simulation Result

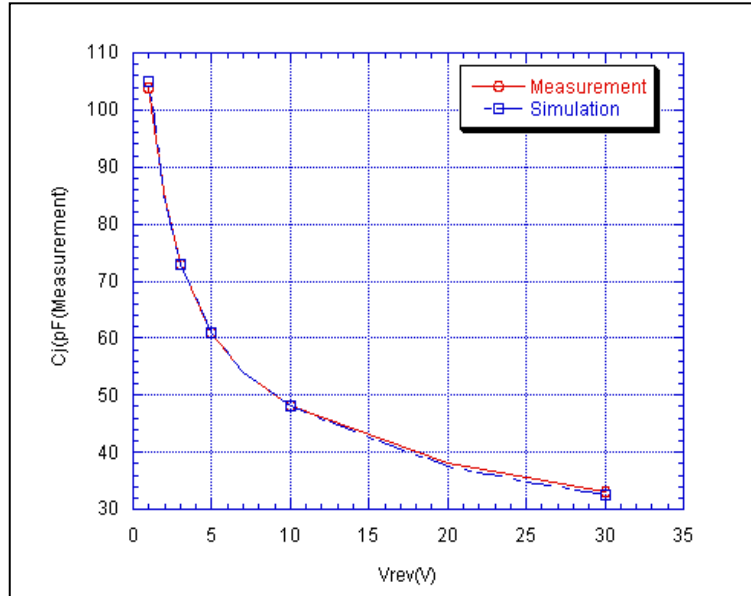


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	104.000	105.000	0.96
2	84.000	83.000	-1.19
5	61.000	60.000	-1.64
10	48.000	47.300	-1.46
20	38.000	37.400	-1.58
30	33.000	32.500	-1.52