

Device Modeling Report

COMPONENTS:
DIODE/ SCHOTTKY RECTIFIER/ STANDARD
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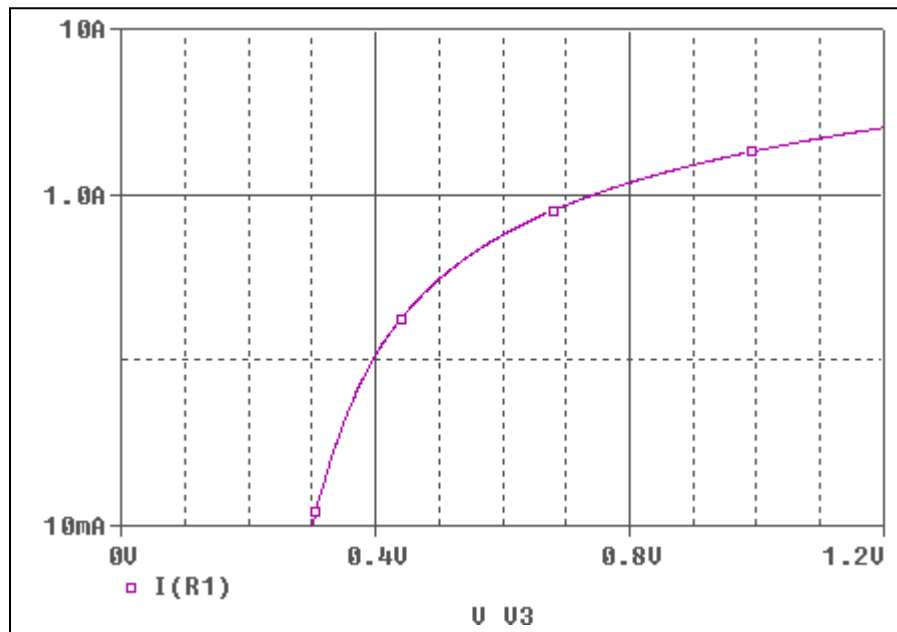


Bee Technologies Inc.

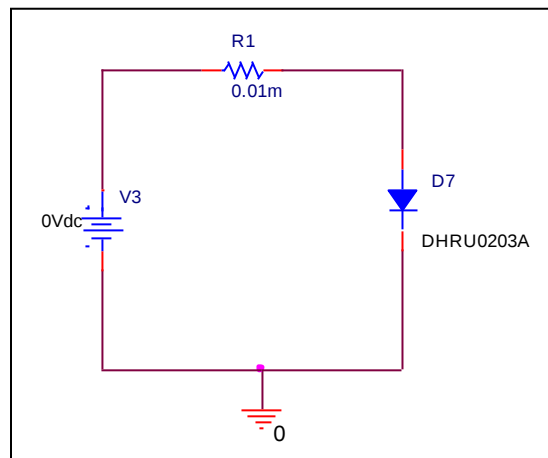
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

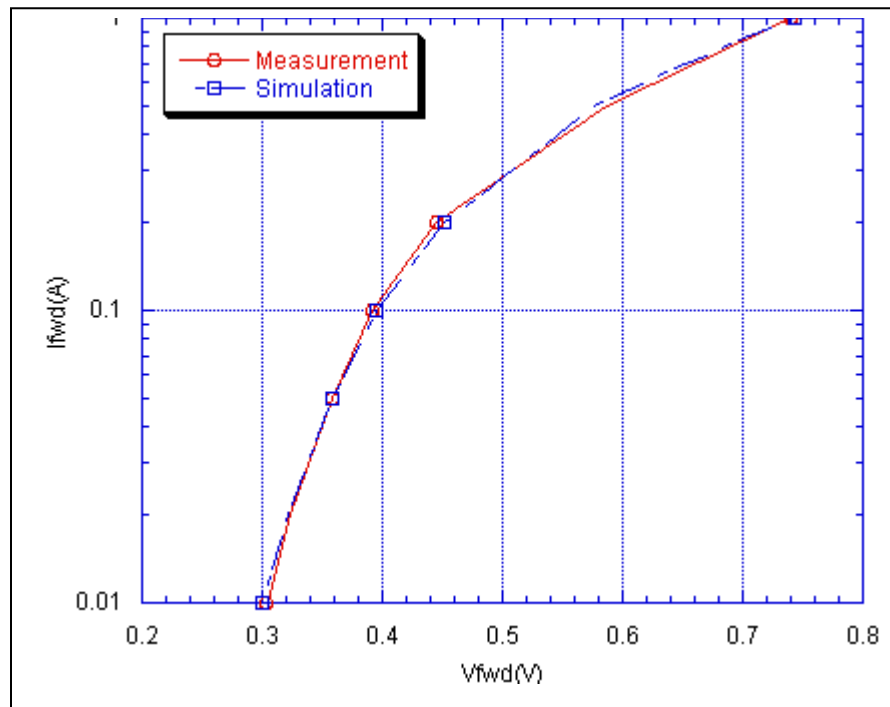


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

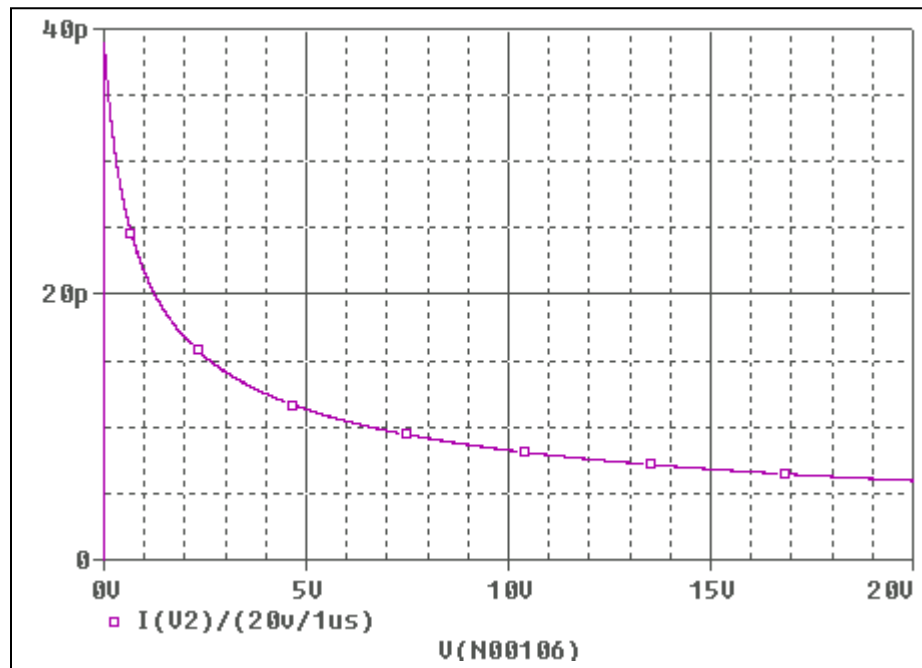


Simulation Result

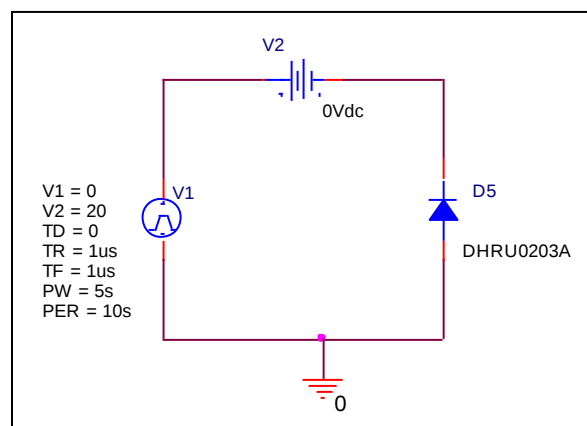
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.01	0.303	0.300	-1.000
0.02	0.323	0.322	-0.311
0.05	0.358	0.357	-0.280
0.1	0.392	0.395	0.759
0.2	0.445	0.452	1.549
0.5	0.586	0.576	-1.736
1	0.740	0.744	0.538

Junction Capacitance Characteristic

Circuit Simulation Result

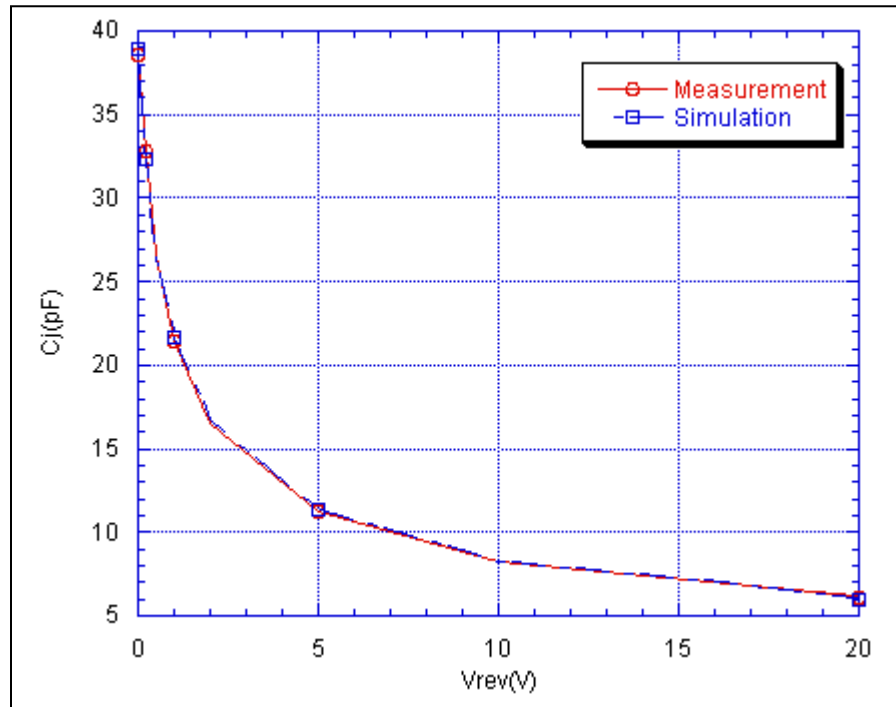


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0	38.626	38.955	0.845
0.1	35.557	35.202	-1.008
0.2	32.757	32.315	-1.368
0.5	26.624	26.737	0.423
1	21.443	21.699	1.180
2	16.499	16.749	1.493
5	11.188	11.326	1.218
10	8.296	8.251	-0.545
20	6.075	5.942	-2.238