

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTTKY RECTIFIER / STANDRD
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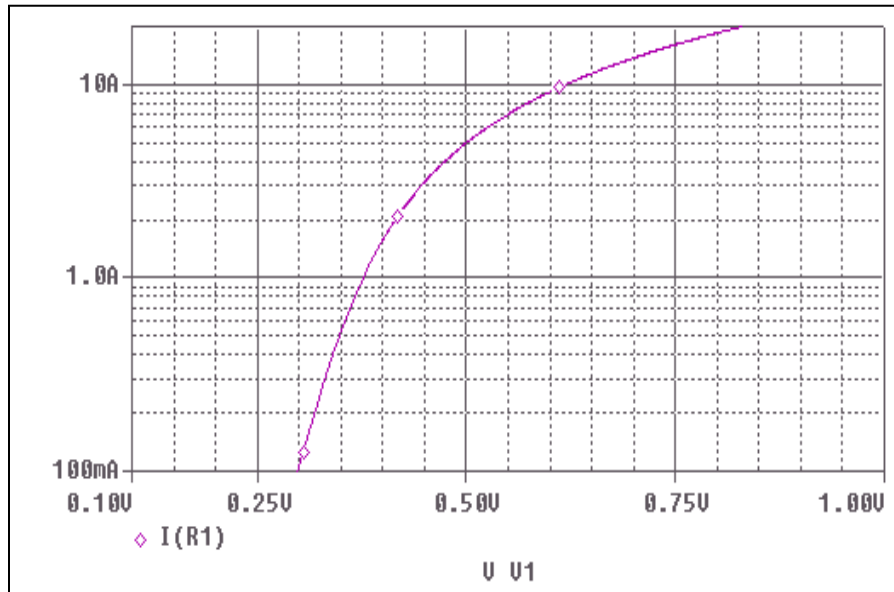


Bee Technologies Inc.

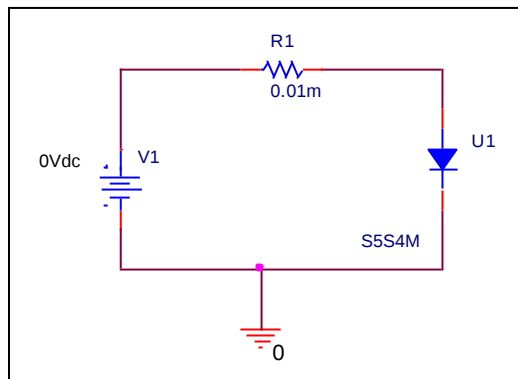
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

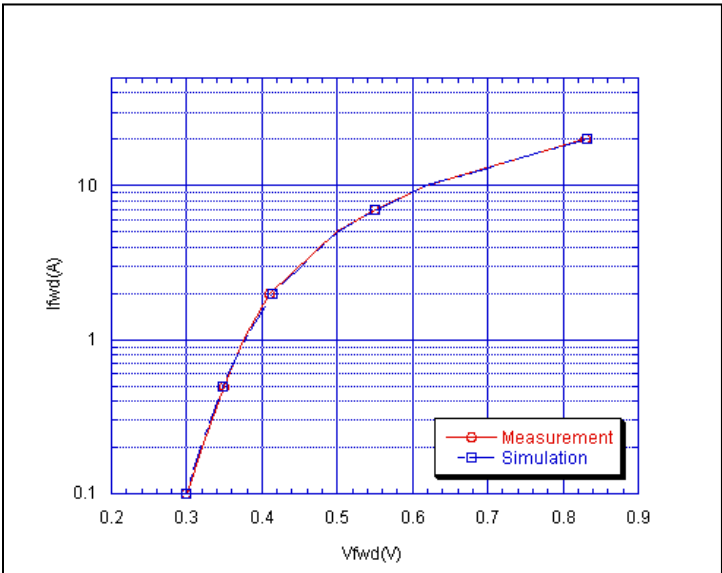


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

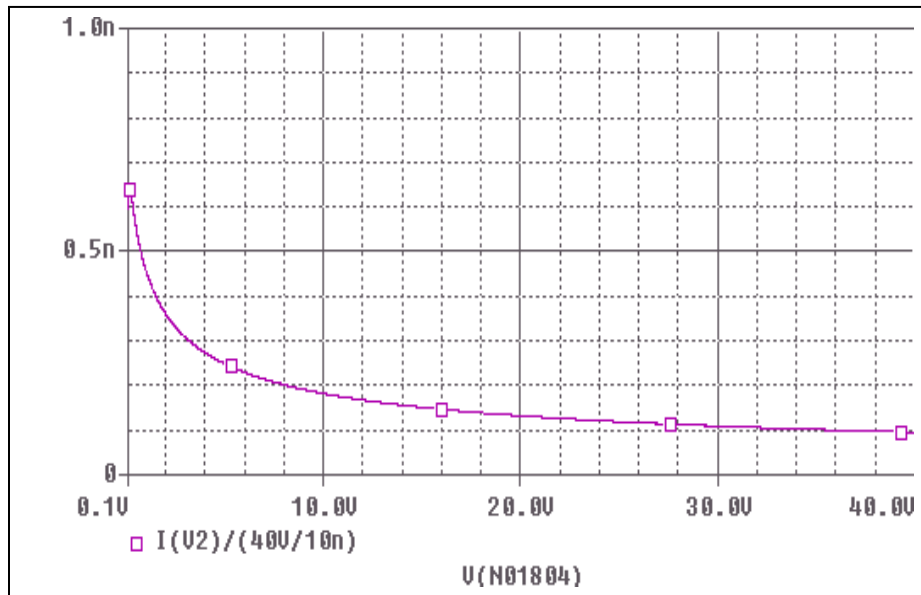


Simulation Result

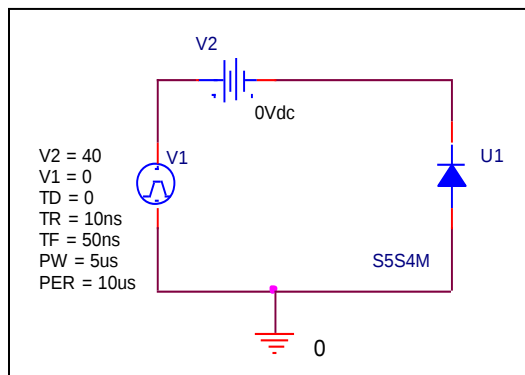
I_{fwd} (A)	V_{fwd} (V) Measurement	V_{fwd} (V) Simulation	%Error
0.1	0.300	0.299	-0.43
0.2	0.320	0.318	-0.53
0.5	0.350	0.348	-0.51
1	0.375	0.377	0.53
2	0.410	0.414	0.98
5	0.500	0.501	0.20
10	0.620	0.618	-0.37
20	0.830	0.831	0.14

Junction Capacitance Characteristic

Circuit Simulation Result

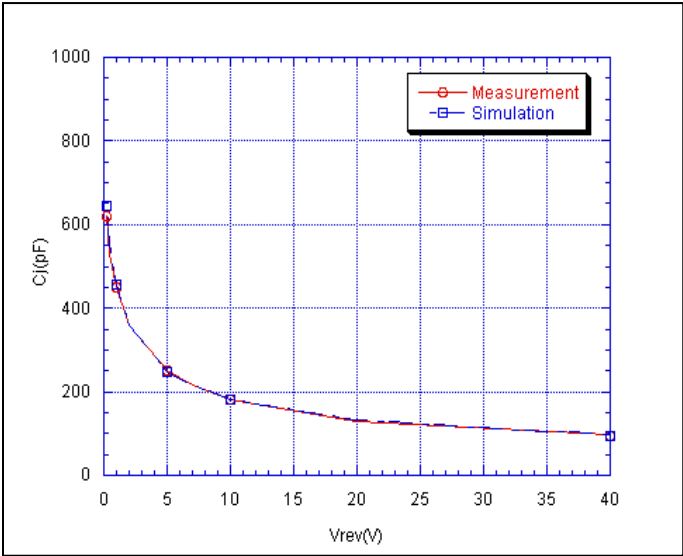


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	450.00	458.20	1.82
2	360.00	360.50	0.14
5	250.00	248.30	-0.68
10	180.00	182.40	1.33
20	130.00	132.30	1.77
40	95.00	95.70	0.74