

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
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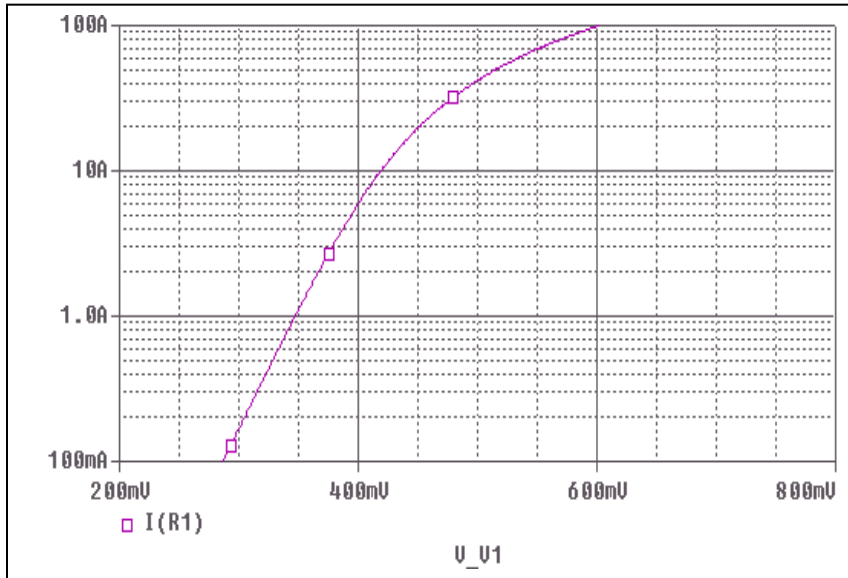


Bee Technologies Inc.

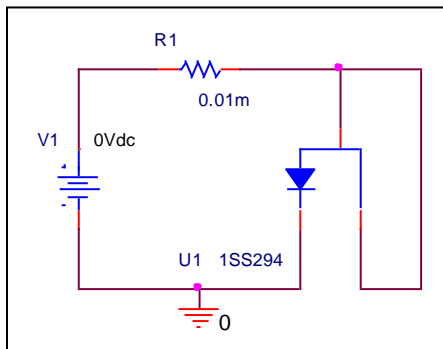
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

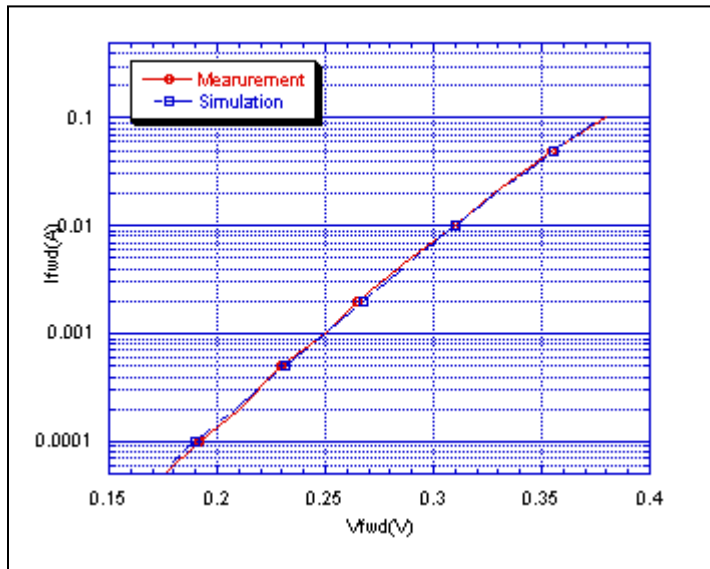


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

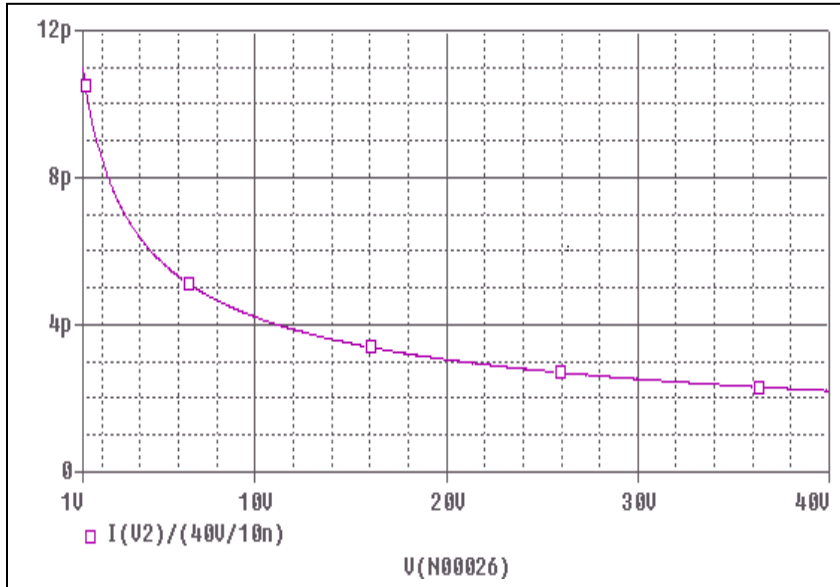


Simulation Result

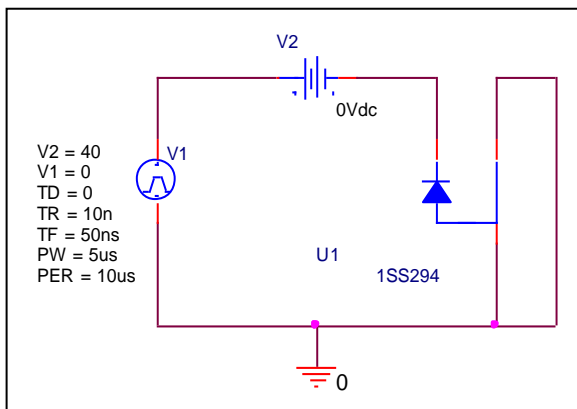
I_{fwd} (A)	V_{fwd} (V) Measurement	V_{fwd} (V) Simulation	%Error
0.1	0.290	0.286	-1.31
0.2	0.308	0.304	-1.23
0.5	0.327	0.328	0.43
1	0.350	0.347	-0.86
2	0.368	0.366	-0.46
5	0.392	0.394	0.54
10	0.415	0.419	0.94
20	0.447	0.451	0.87
50	0.510	0.516	1.08
100	0.605	0.602	-0.43

Junction Capacitance Characteristic

Circuit Simulation Result

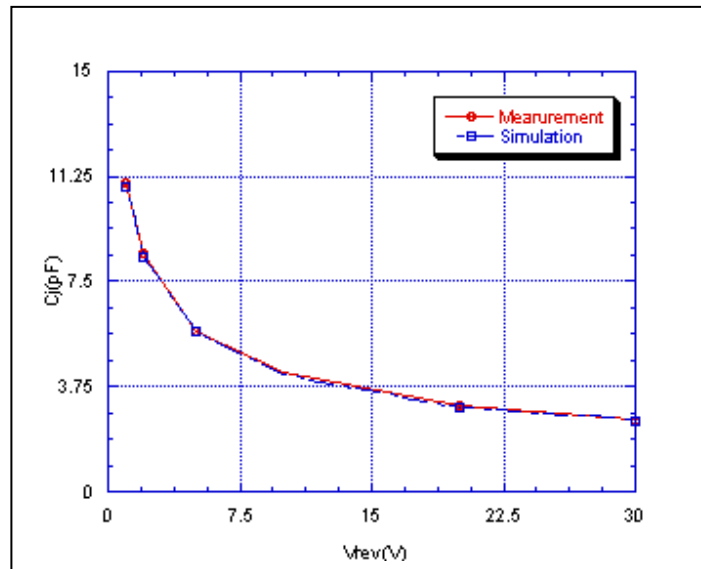


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

V_{rev} (V)	C_j (pF) Measurement	C_j (pF) Simulation	%Error
1	11.000	10.900	-0.91
2	8.500	8.400	-1.18
5	5.710	5.700	-0.18
10	4.250	4.200	-1.18
20	3.090	3.000	-2.91
30	2.510	2.500	-0.40