

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTTKY RECTIFIER / STANDARD
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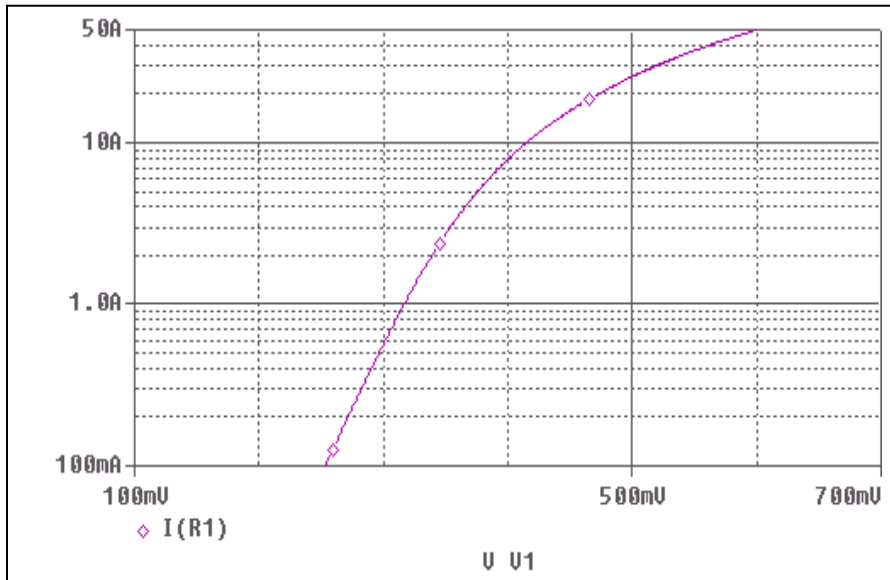


Bee Technologies Inc.

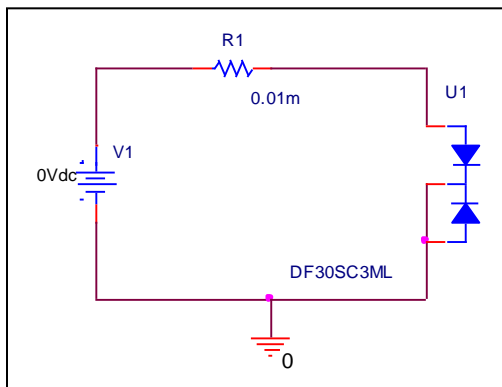
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

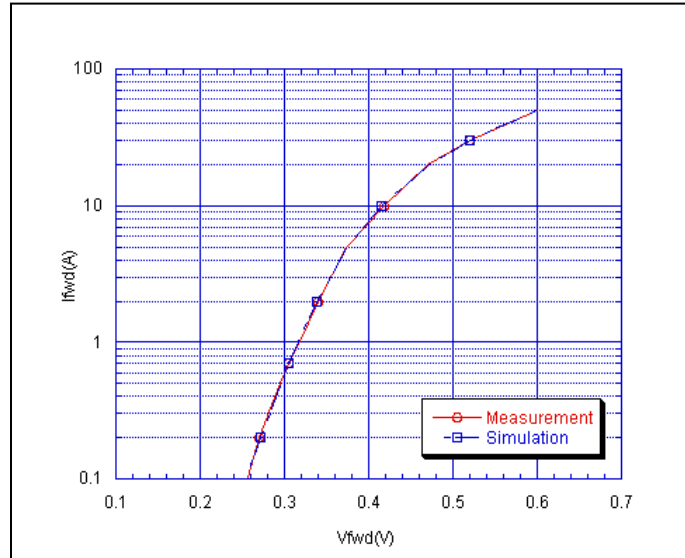


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

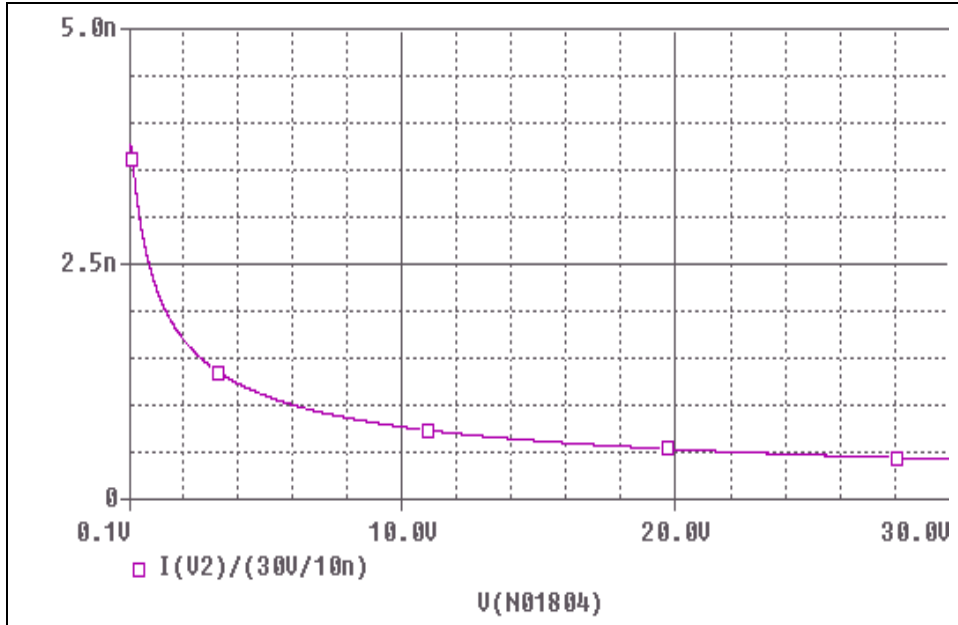


Simulation Result

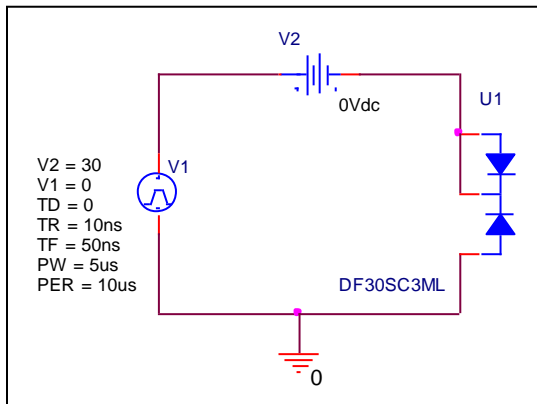
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.255	0.253	-0.78
0.2	0.270	0.271	0.48
0.5	0.295	0.296	0.47
1	0.318	0.317	-0.47
2	0.340	0.339	-0.35
5	0.373	0.375	0.62
10	0.418	0.415	-0.77
20	0.470	0.472	0.51
50	0.602	0.600	-0.33

Junction Capacitance Characteristic

Circuit Simulation Result

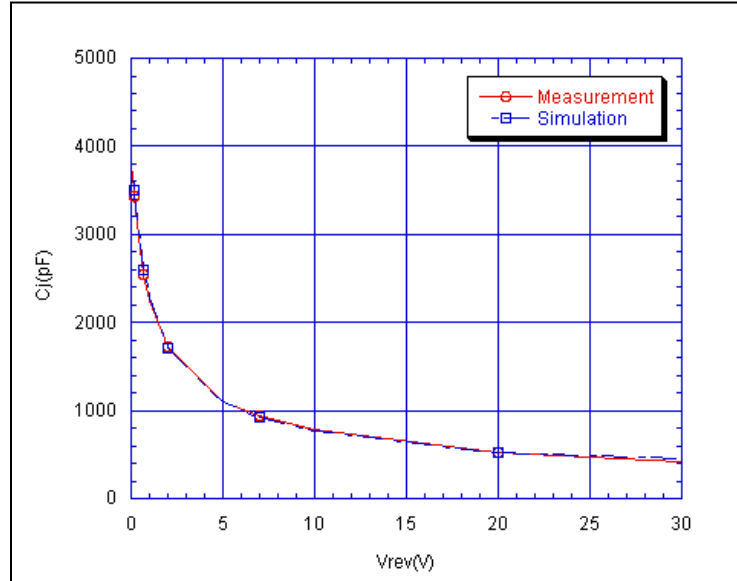


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.1	3720.00	3734.00	0.38
0.2	3440.00	3510.00	2.03
0.5	2820.00	2898.00	2.77
1	2240.00	2290.00	2.23
2	1725.00	1715.00	-0.58
5	1100.00	1104.00	0.36
10	780.00	771.10	-1.14
20	530.00	531.00	0.19
30	400.00	428.10	7.03