

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
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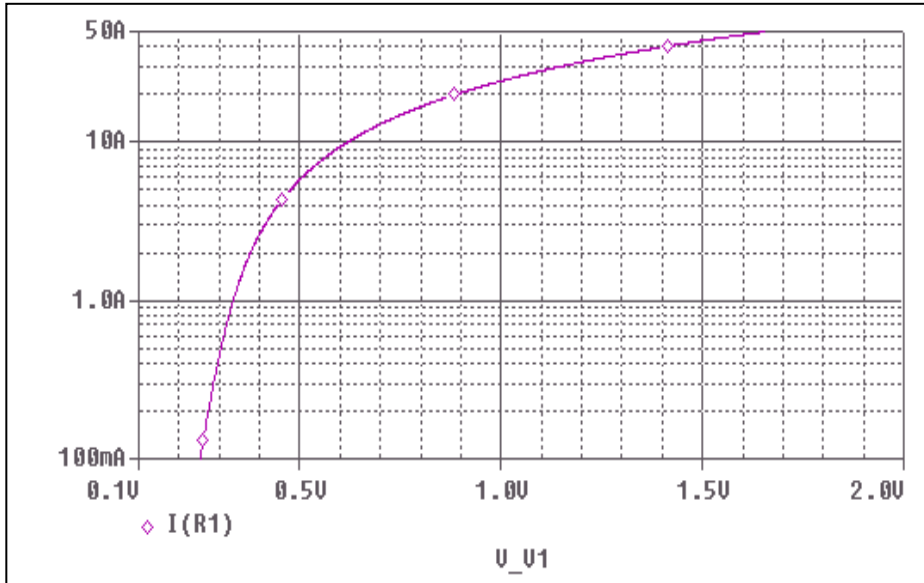


Bee Technologies Inc.

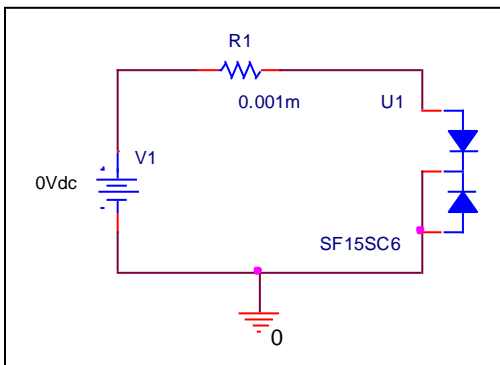
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

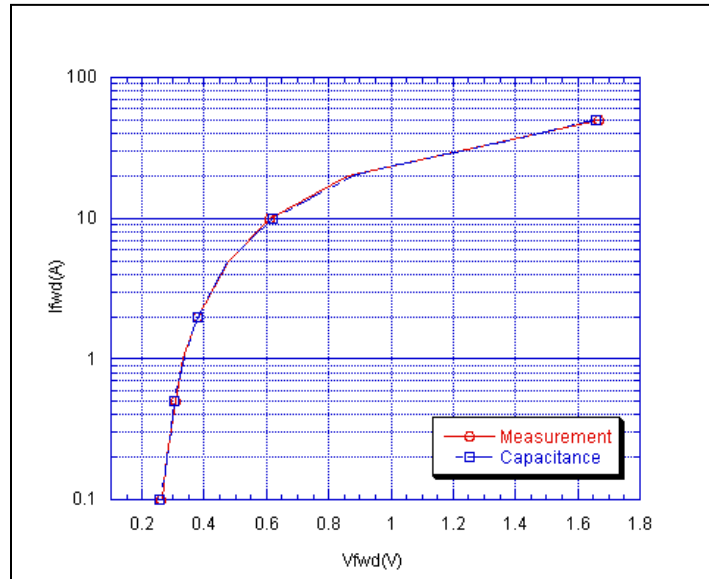


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

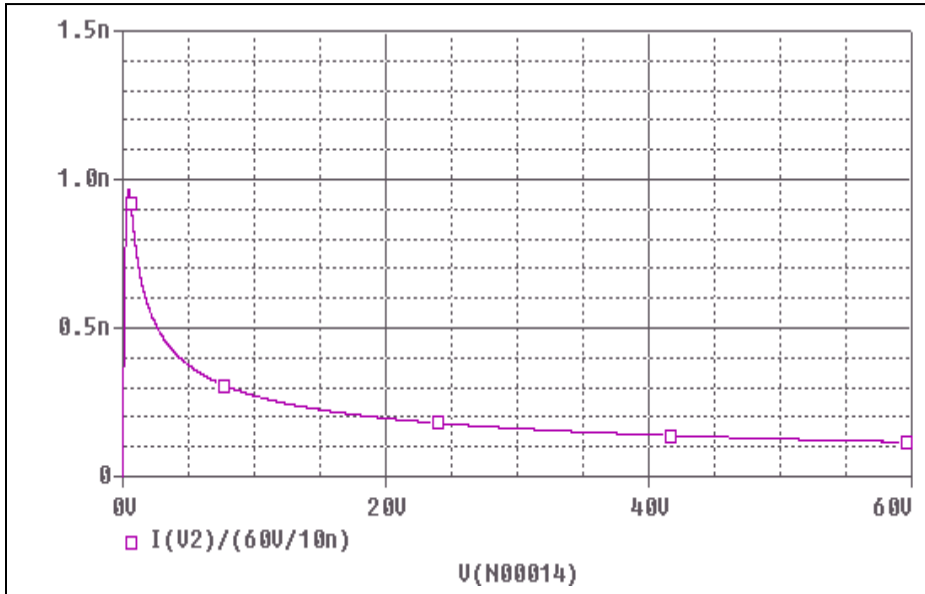


Simulation Result

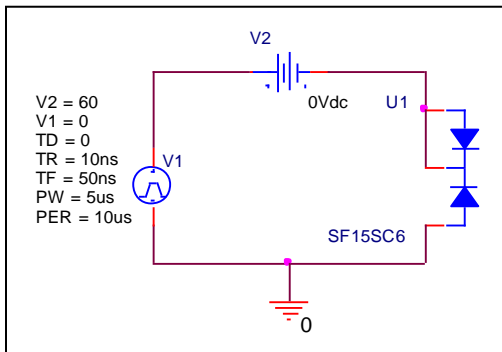
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.260	0.256	-1.69
0.2	0.280	0.278	-0.64
0.5	0.310	0.304	-1.94
1	0.330	0.334	1.27
2	0.380	0.377	-0.71
5	0.480	0.477	-0.56
10	0.610	0.618	1.31
20	0.860	0.876	1.86
50	1.670	1.658	-0.72

Junction Capacitance Characteristic

Circuit Simulation Result

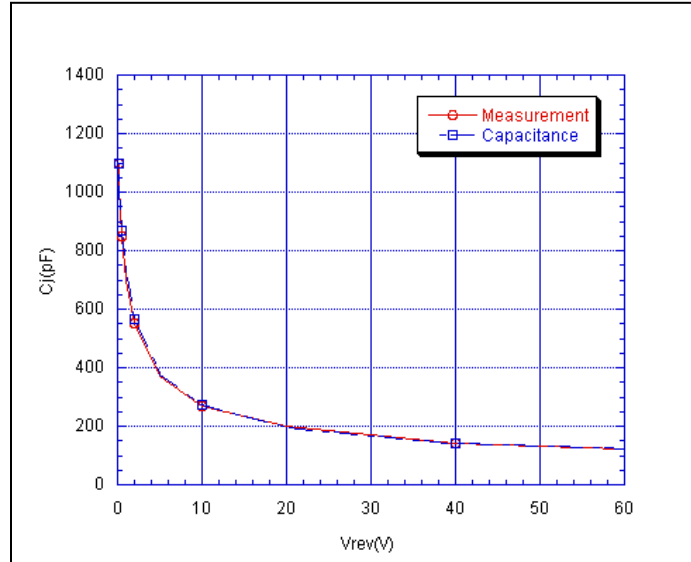


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.1	1140.00	1100.00	-3.51
0.2	1020.00	1000.00	-1.96
0.5	850.00	870.20	2.38
1	710.00	730.00	2.82
2	550.00	564.40	2.62
5	370.00	375.50	1.49
10	270.00	271.40	0.52
20	198.00	196.30	-0.86
60	115.00	116.30	1.13