

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: M1FH3
MANUFACTURER: SHINDENGEN

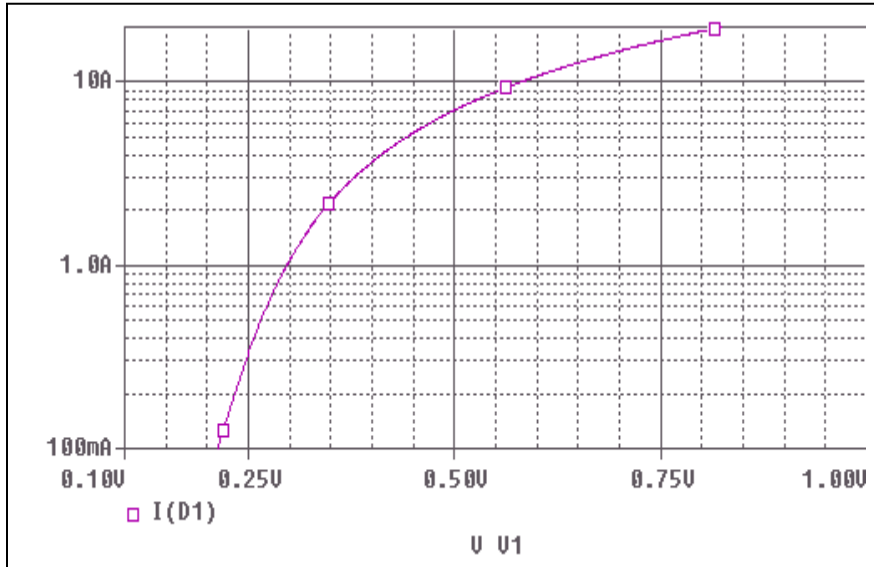


Bee Technologies Inc.

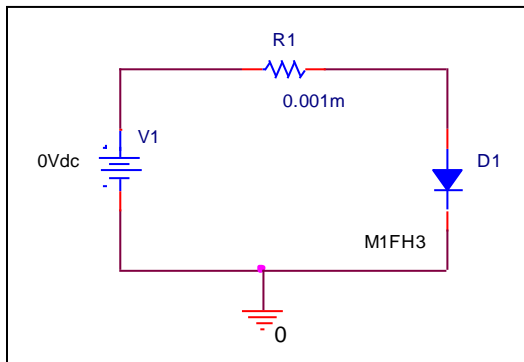
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

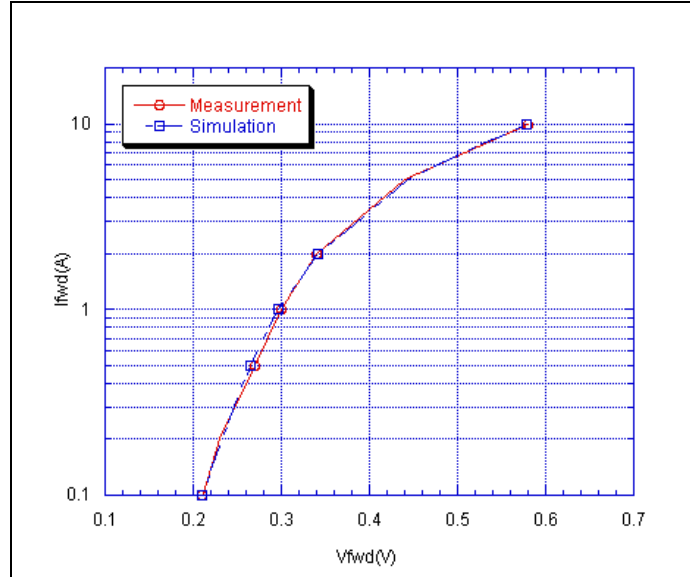


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

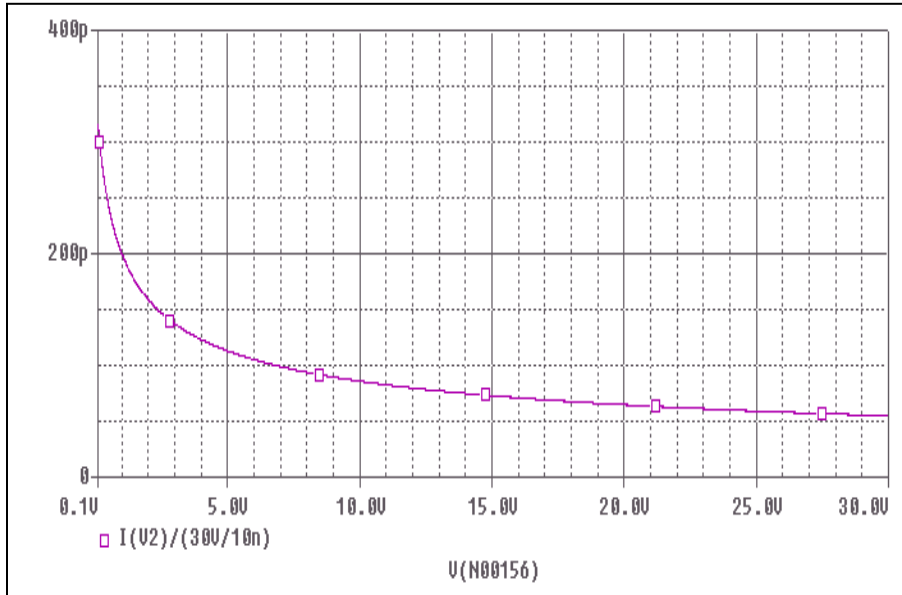


Simulation Result

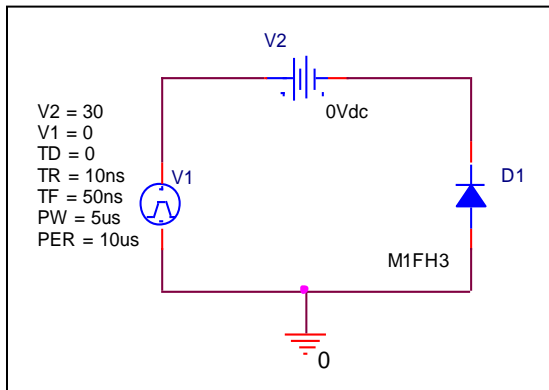
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.212	0.210	-0.94
0.2	0.230	0.233	1.30
0.5	0.270	0.265	-1.85
1	0.300	0.297	-1.00
2	0.340	0.341	0.29
5	0.440	0.443	0.68
10	0.580	0.579	-0.17

Junction Capacitance Characteristic

Circuit Simulation Result

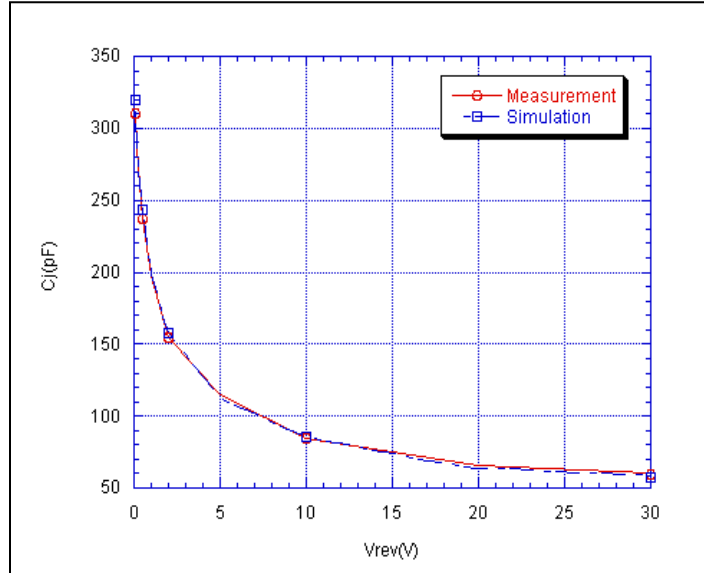


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.1	310.00	320.00	3.23
0.2	285.00	290.00	1.75
0.5	237.00	243.00	2.53
1	197.00	199.00	1.02
2	155.00	158.00	1.94
5	115.00	113.00	-1.74
10	85.00	86.00	1.18
20	66.00	64.00	-3.03
30	59.00	57.00	-3.39