

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: M1FP3
MANUFACTURER: SHINDENGEN

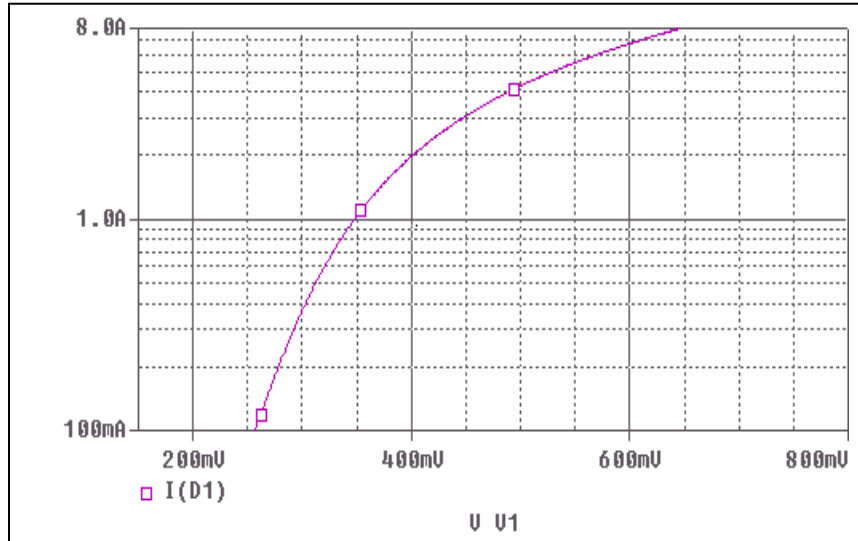


Bee Technologies Inc.

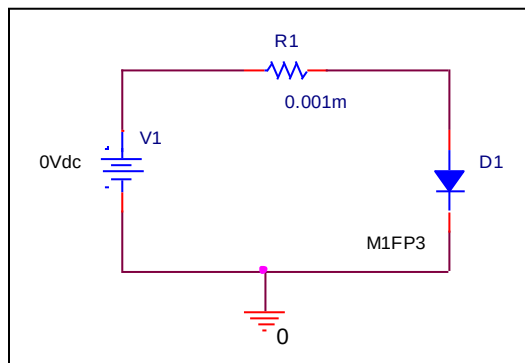
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

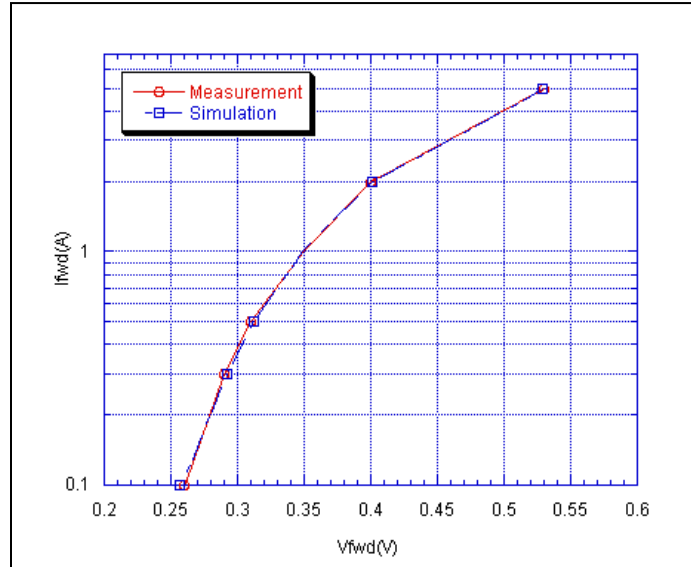


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

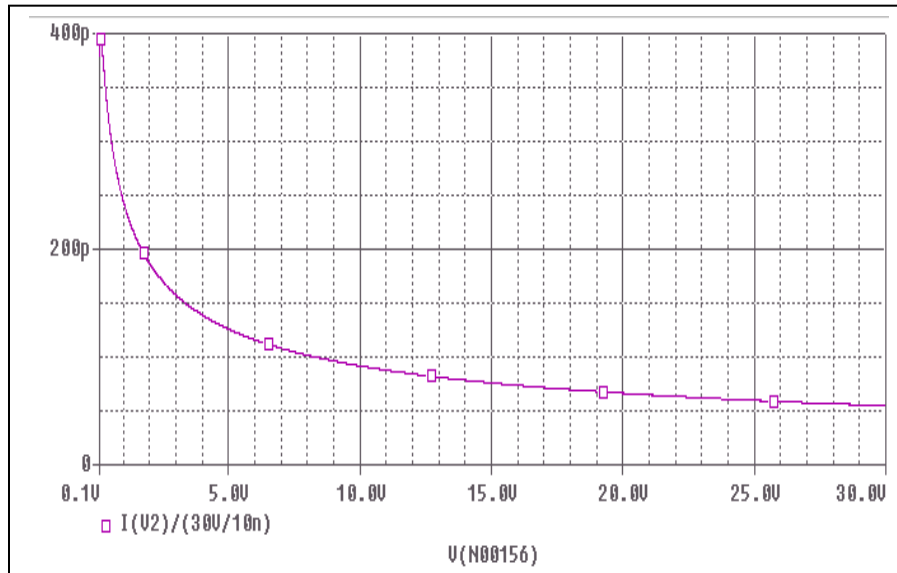


Simulation Result

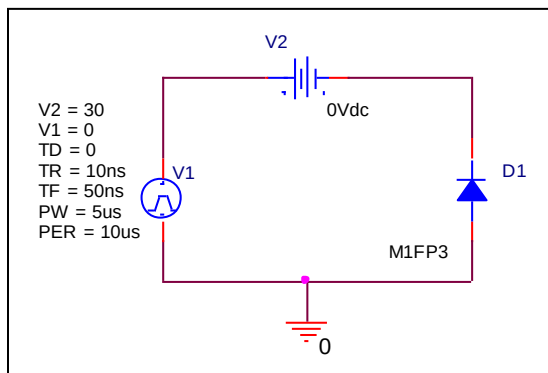
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.260	0.257	-1.15
0.3	0.290	0.292	0.69
0.5	0.310	0.312	0.65
1	0.350	0.349	-0.29
2	0.400	0.401	0.25
5	0.530	0.529	-0.19

Junction Capacitance Characteristic

Circuit Simulation Result

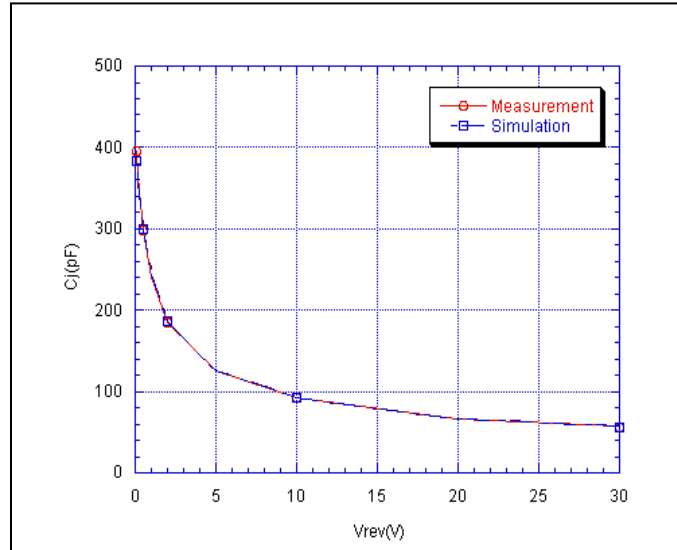


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.1	395.00	383.00	-3.04
0.2	365.00	370.00	1.37
0.5	298.00	300.00	0.67
1	240.00	244.00	1.67
2	185.00	187.00	1.08
5	126.00	125.00	-0.79
10	92.00	92.20	0.22
20	67.00	66.20	-1.19
30	55.00	55.30	0.55