

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTTKY RECTIFIER / STANDARD
PART NUMBER: D1FS6
MANUFACTURER: SHINDENGEN

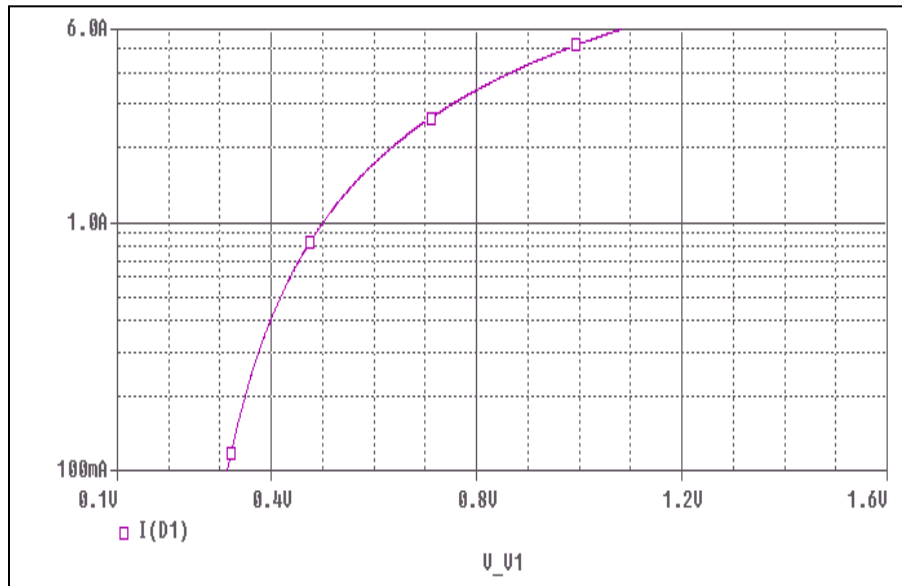


Bee Technologies Inc.

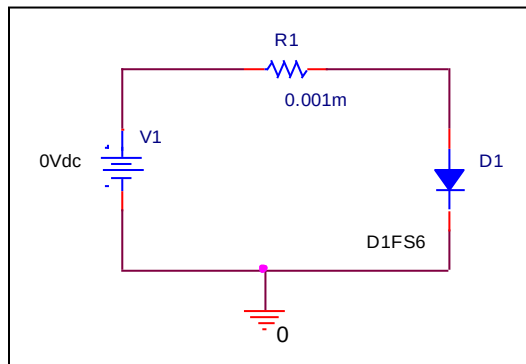
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

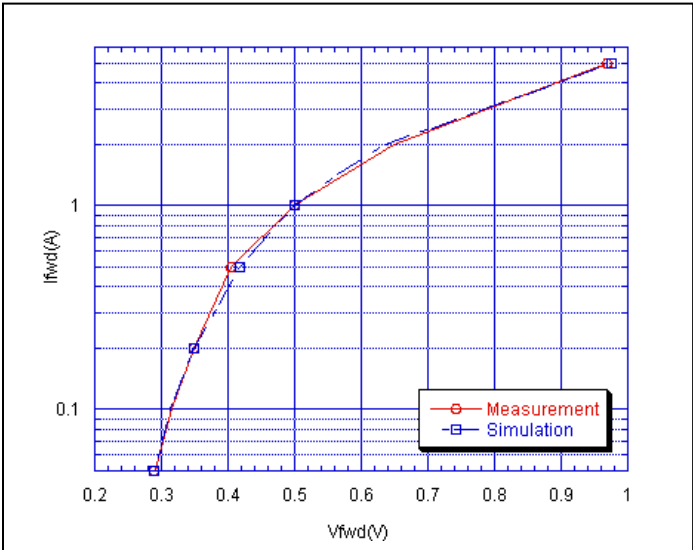


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

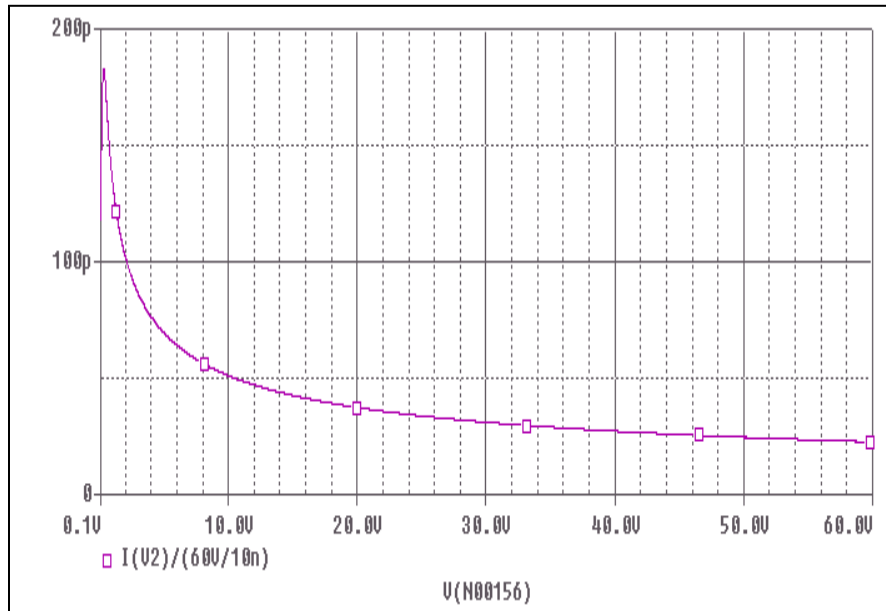


Simulation Result

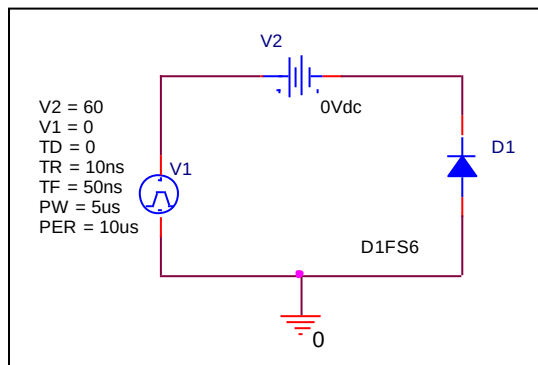
I_{fwd} (A)	V_{fwd} (V) Measurement	V_{fwd} (V) Simulation	%Error
0.05	0.290	0.288	-0.69
0.1	0.315	0.314	-0.32
0.2	0.349	0.348	-0.29
0.5	0.405	0.417	2.96
1	0.498	0.500	0.40
2	0.645	0.633	-1.86
5	0.970	0.976	0.62

Junction Capacitance Characteristic

Circuit Simulation Result

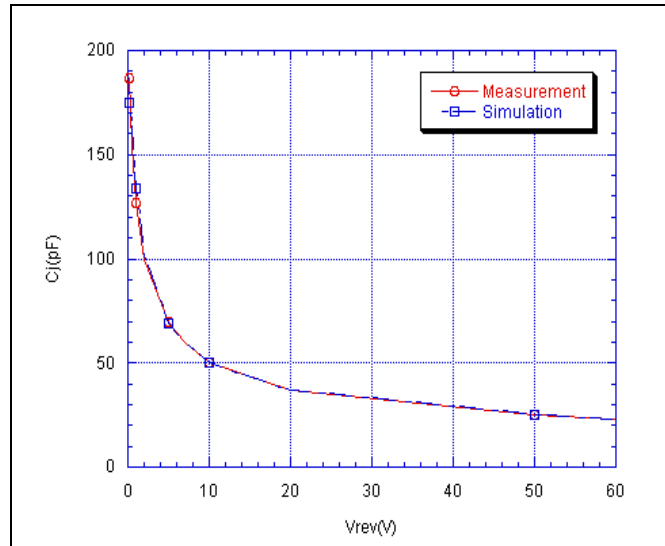


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.2	184.000	175.000	-4.89
0.5	158.000	165.000	4.43
1	129.000	134.000	3.88
2	100.000	102.000	2.00
5	70.000	69.300	-1.00
10	50.000	50.300	0.60
20	37.000	37.300	0.81
50	24.888	25.000	0.45