

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTTKY RECTIFIER / STANDARD
PART NUMBER: SF15JC6
MANUFACTURER: SHINDENGEN

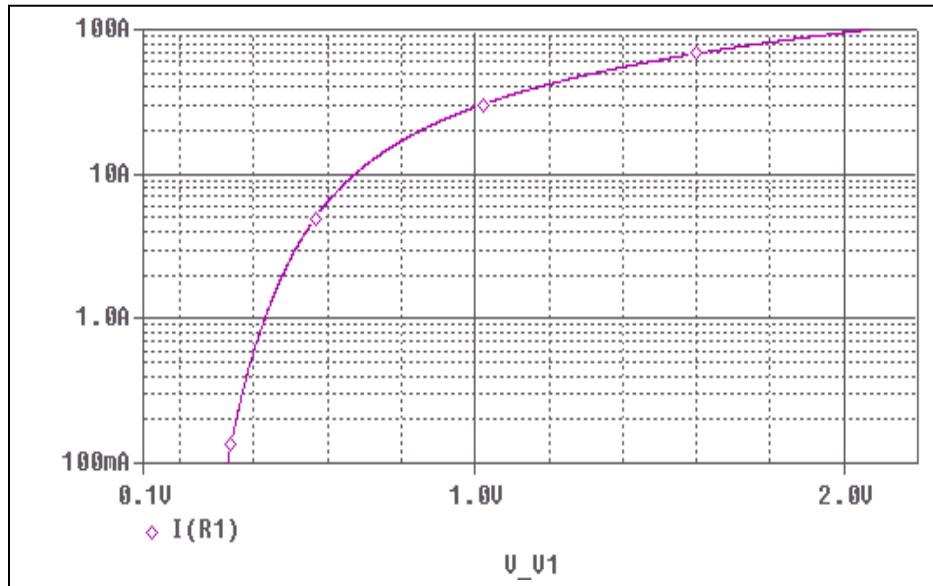


Bee Technologies Inc.

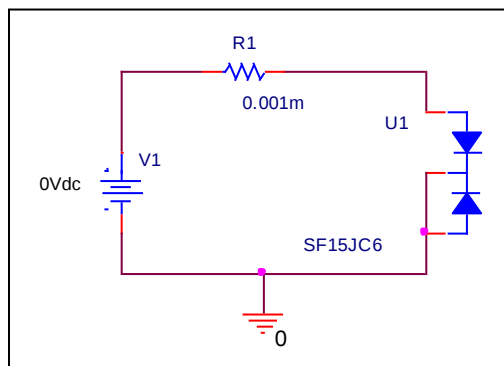
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

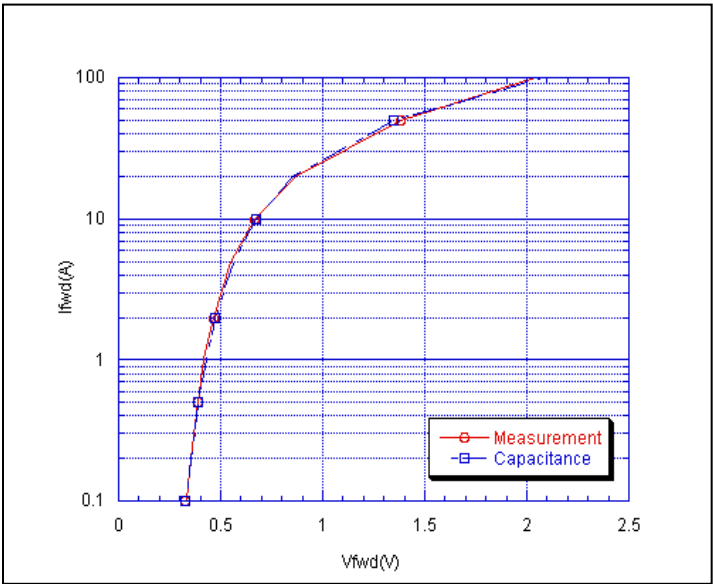


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

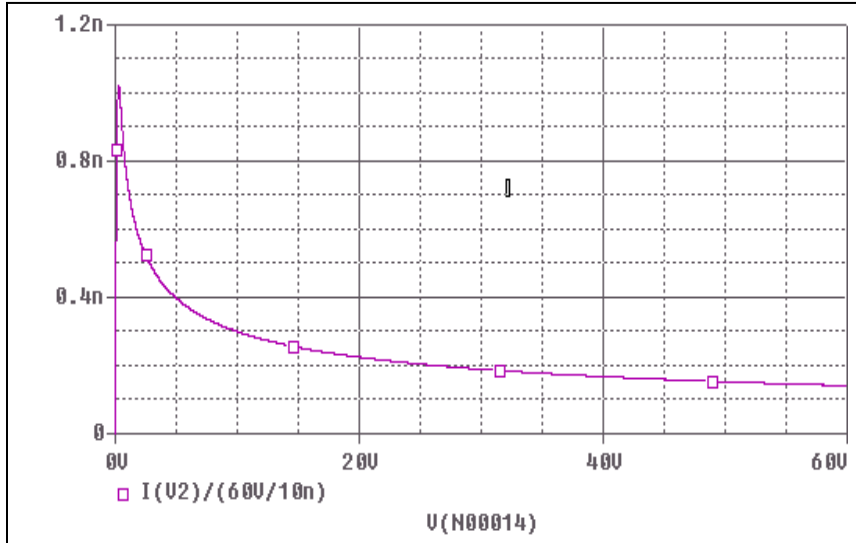


Simulation Result

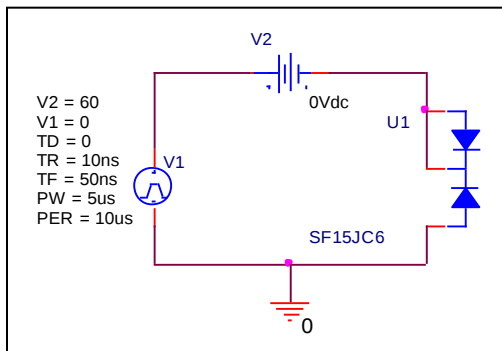
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.330	0.329	-0.39
0.2	0.355	0.352	-0.79
0.5	0.390	0.391	0.26
1	0.417	0.429	2.97
2	0.465	0.475	2.04
5	0.550	0.560	1.82
10	0.670	0.675	0.75
20	0.870	0.853	-1.99
50	1.380	1.350	-2.17
100	2.040	2.070	1.46

Junction Capacitance Characteristic

Circuit Simulation Result

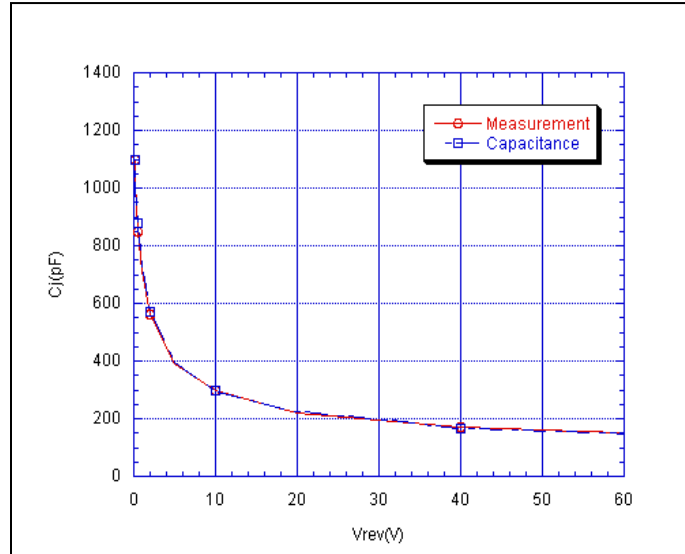


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.1	1150.00	1100.00	-4.35
0.2	1020.00	988.40	-3.10
0.5	850.00	880.00	3.53
1	710.00	735.50	3.59
2	560.00	569.80	1.75
5	390.00	397.70	1.97
10	300.00	300.20	0.07
20	221.00	224.60	1.63
60	145.00	141.10	-2.69