

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: SF5SC3L
MANUFACTURER: SHINDENGEN

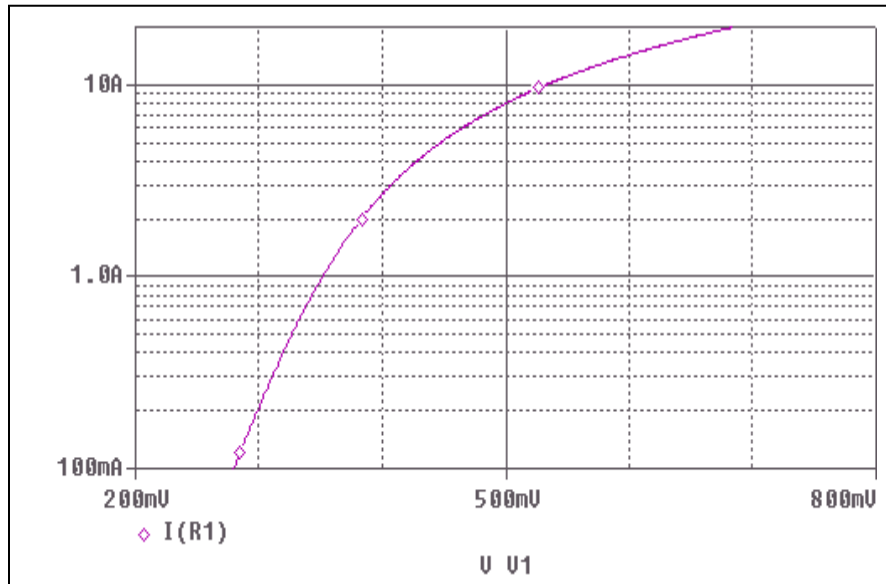


Bee Technologies Inc.

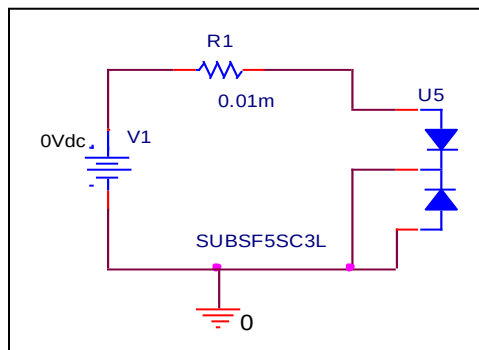
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

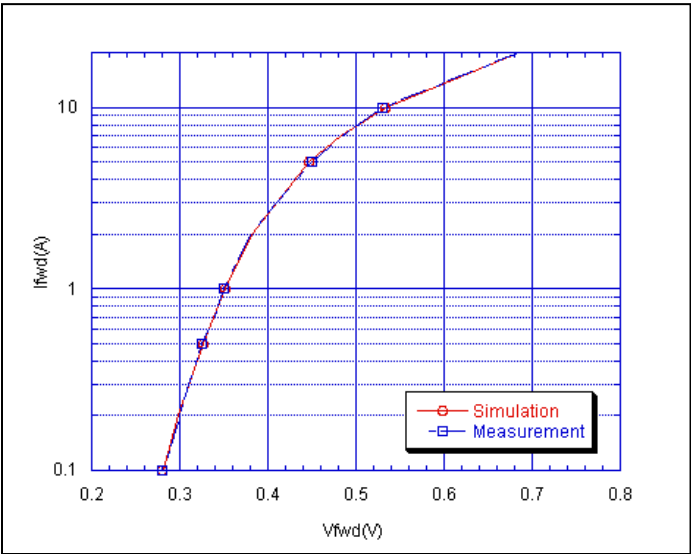


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

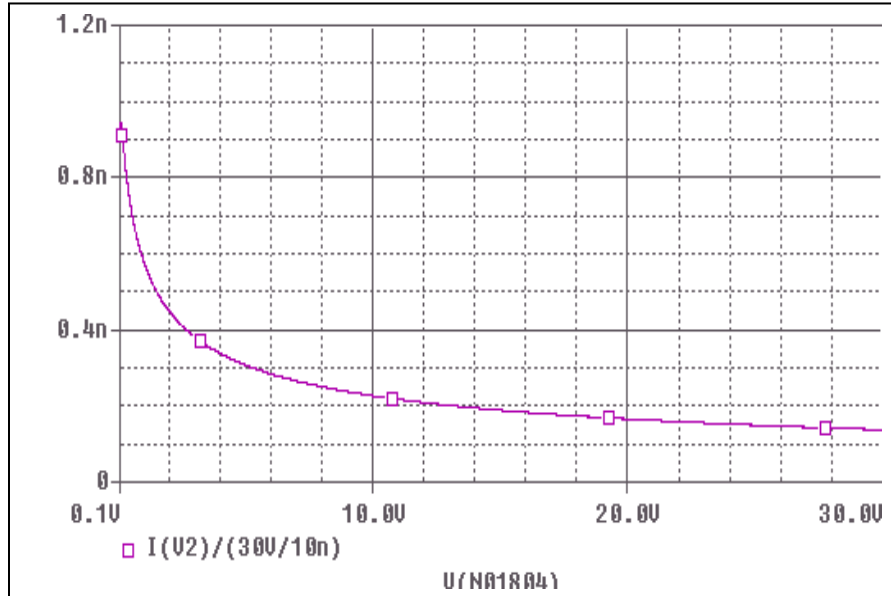


Simulation Result

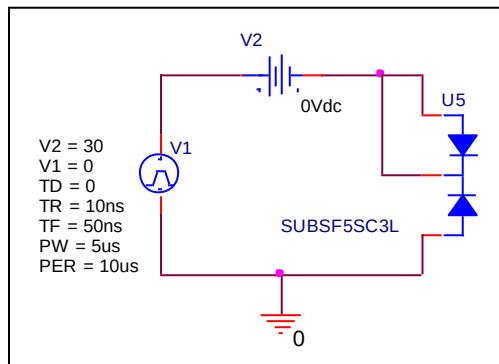
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.280	0.280	-0.18
0.2	0.300	0.299	-0.37
0.5	0.325	0.326	0.40
1	0.350	0.352	0.43
2	0.380	0.382	0.50
5	0.450	0.448	-0.56
10	0.530	0.533	0.58
20	0.685	0.685	-0.03

Junction Capacitance Characteristic

Circuit Simulation Result

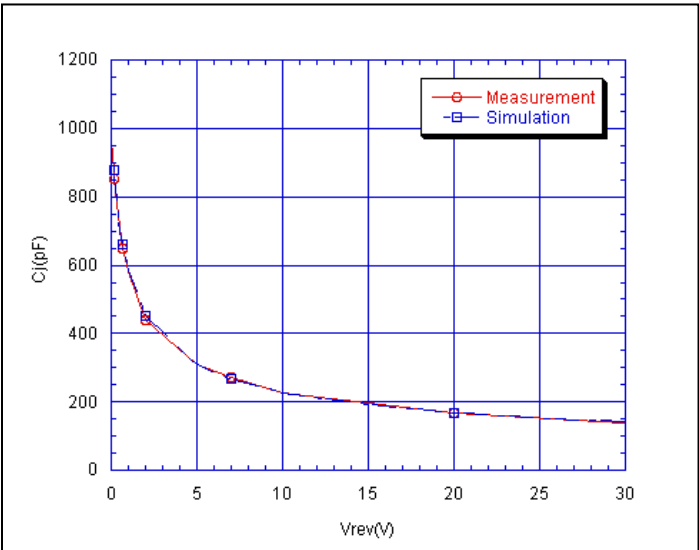


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.1	940.00	924.80	-1.62
0.2	855.00	880.00	2.92
0.5	710.00	700.00	-1.41
1	580.00	586.80	1.17
2	440.00	450.00	2.27
5	308.00	308.10	0.03
10	225.00	226.30	0.58
20	169.00	165.60	-2.01
30	135.00	138.20	2.37