

Device Modeling Report

COMPONENTS:

DIODE/ SCHOTTKY RECTIFIER / STANDARD

PART NUMBER: DF25SC6M

MANUFACTURER: SHINDENGEN

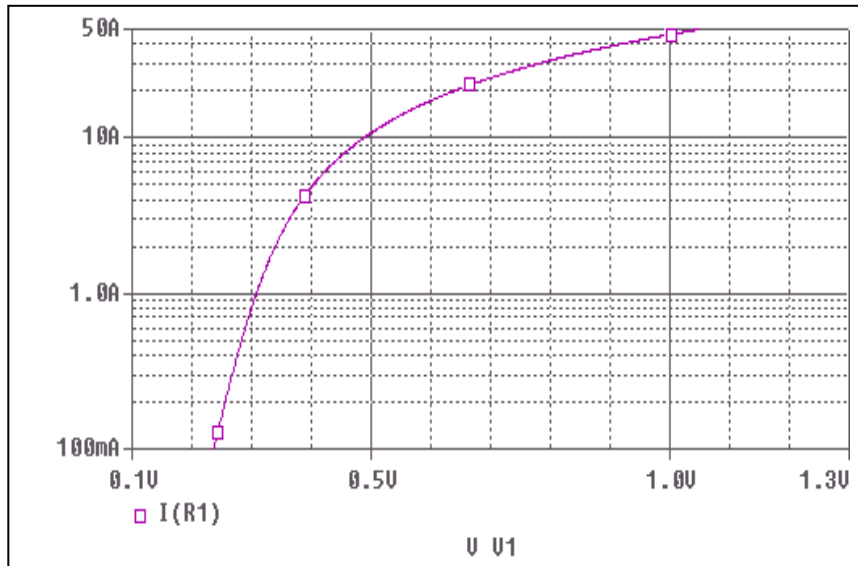


Bee Technologies Inc.

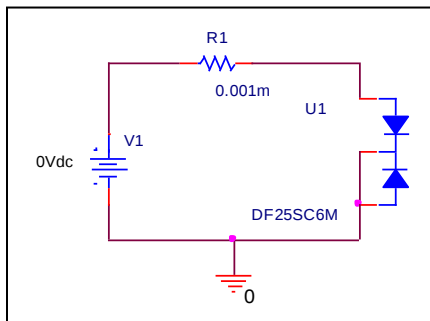
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

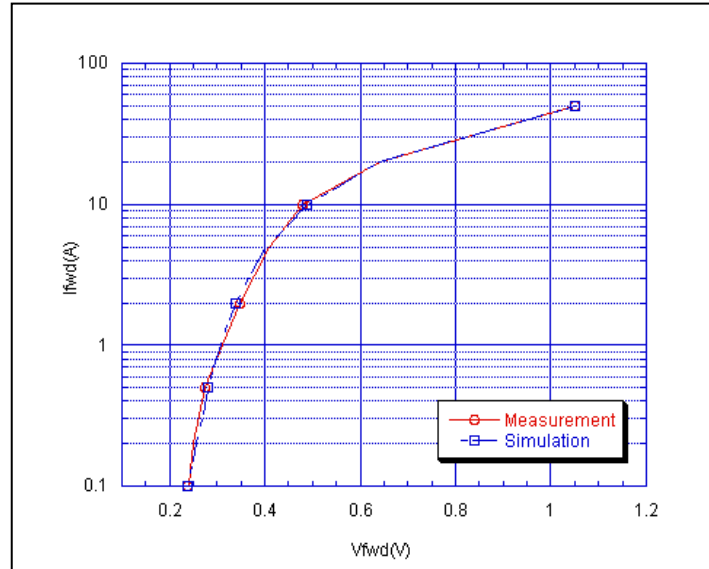


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

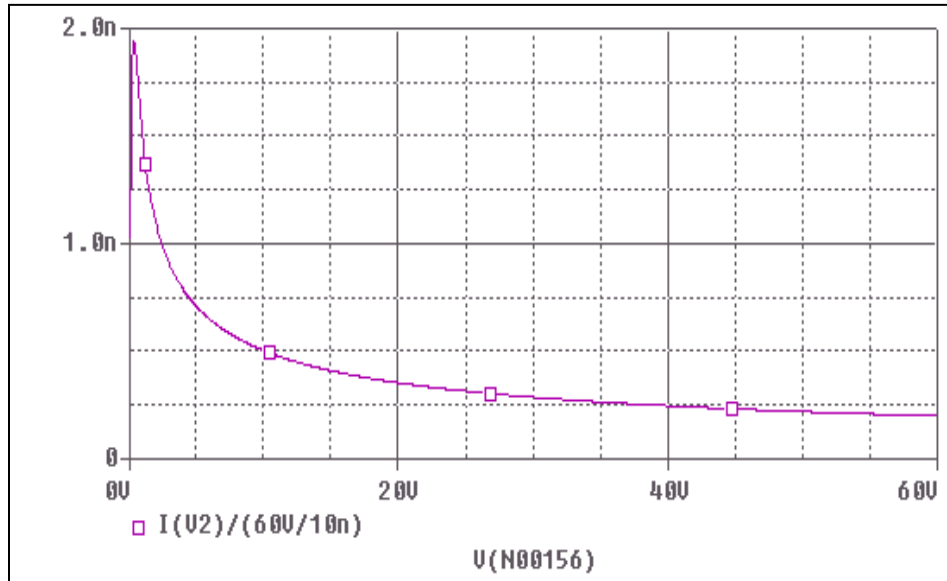


Simulation Result

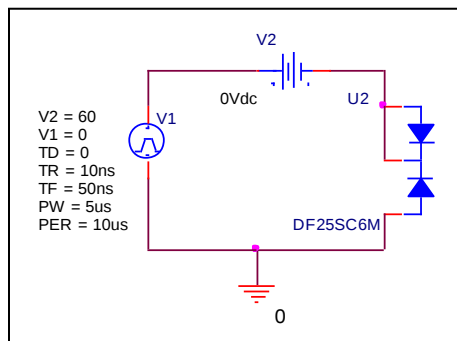
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.239	0.236	-1.13
0.2	0.250	0.256	2.24
0.5	0.275	0.280	1.82
1	0.310	0.309	-0.42
2	0.348	0.339	-2.50
5	0.410	0.403	-1.66
10	0.480	0.487	1.46
20	0.640	0.639	-0.20
50	1.060	1.050	-0.94

Junction Capacitance Characteristic

Circuit Simulation Result

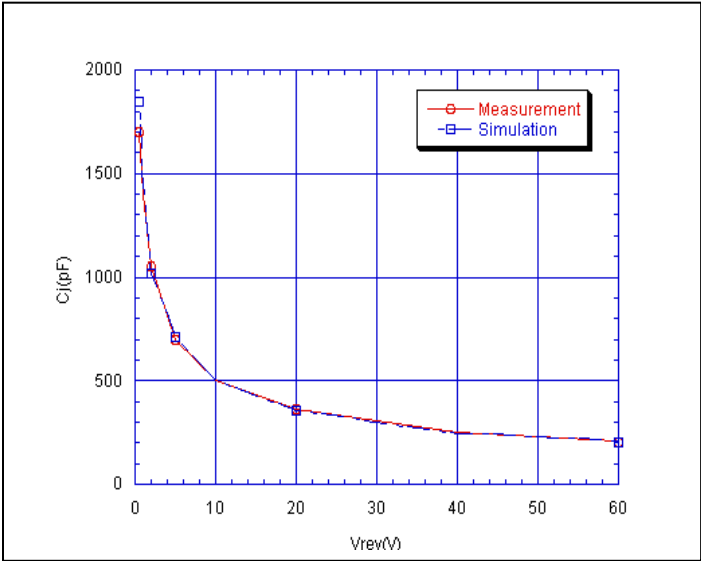


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.5	1700.00	1850.00	8.82
1	1400.00	1450.00	3.57
2	1050.00	1020.00	-2.86
5	700.00	711.90	1.70
10	500.00	503.90	0.78
20	360.00	353.70	-1.75
60	200.00	200.50	0.25