

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: D4SC6M
MANUFACTURER: SHINDENGEN

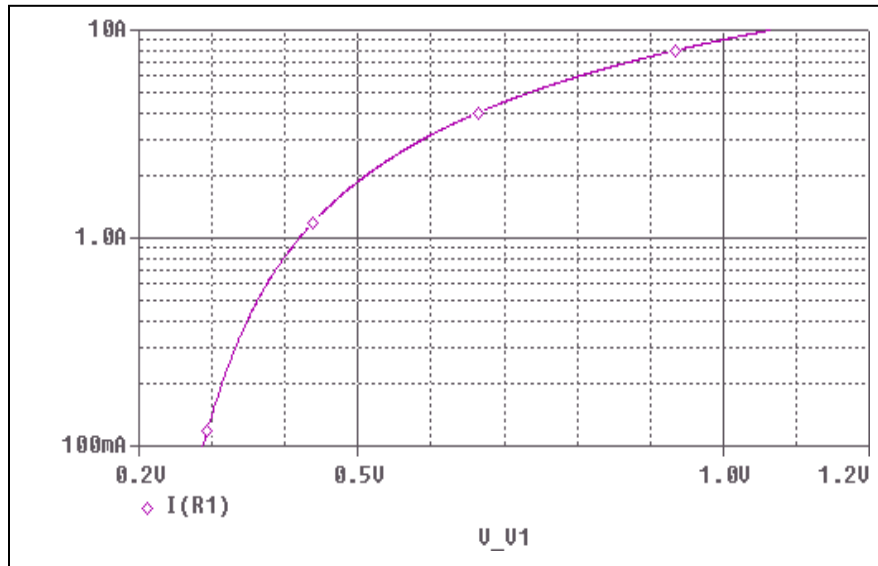


Bee Technologies Inc.

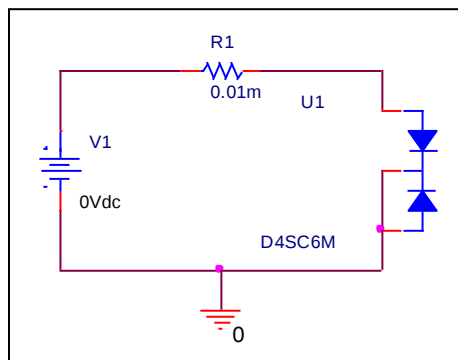
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

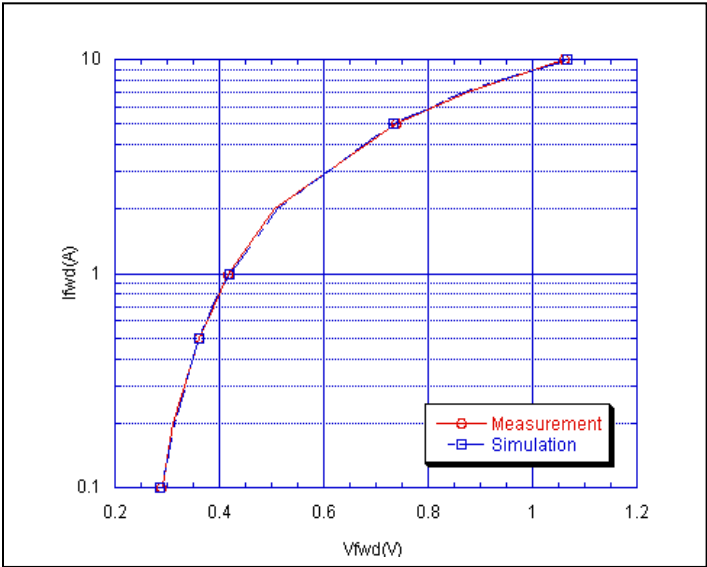


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

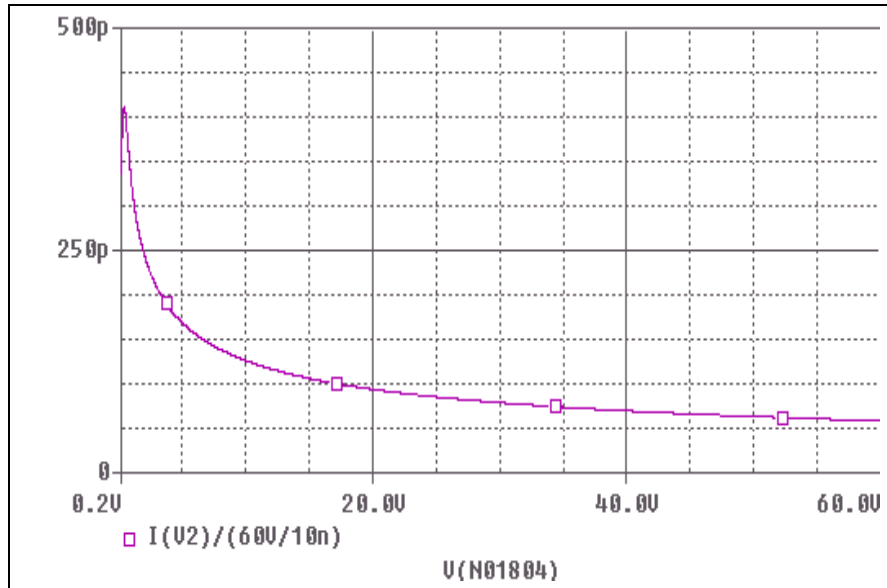


Simulation Result

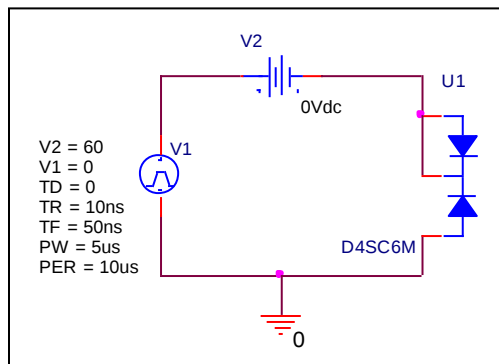
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.290	0.287	-0.90
0.2	0.312	0.314	0.54
0.5	0.360	0.362	0.58
0.7	0.390	0.387	-0.79
1	0.418	0.421	0.62
2	0.505	0.510	0.99
5	0.740	0.735	-0.70
10	1.060	1.066	0.57
0.1	0.290	0.287	-0.90

Junction Capacitance Characteristic

Circuit Simulation Result

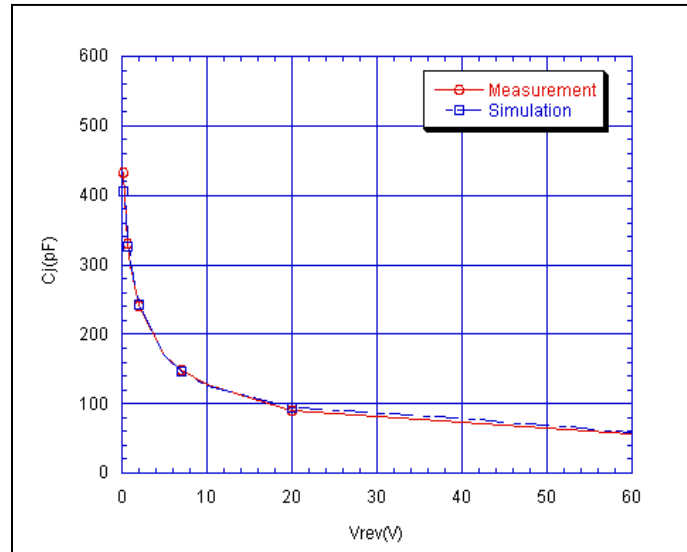


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.2	422.000	406.300	-3.72
0.5	364.000	372.000	2.20
0.7	330.000	326.600	-1.03
1	308.000	312.000	1.30
2	240.000	243.100	1.29
5	169.000	168.700	-0.18
7	148.000	146.700	-0.88
10	128.000	126.000	-1.56
20	90.000	93.900	4.33
60	55.000	57.500	4.55