

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: SF10SC6
MANUFACTURER: SHINDENGEN

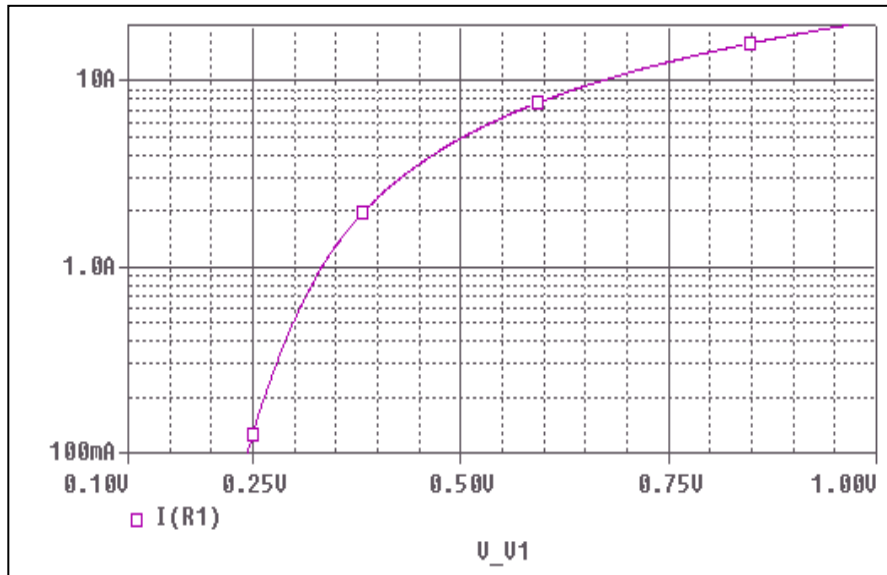


Bee Technologies Inc.

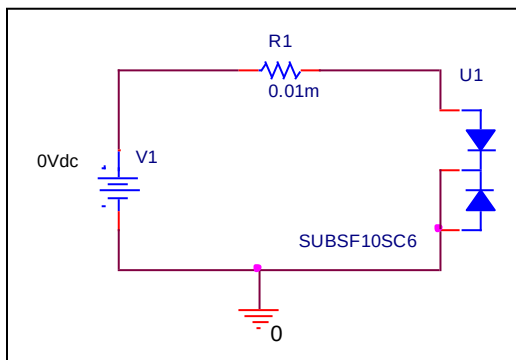
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

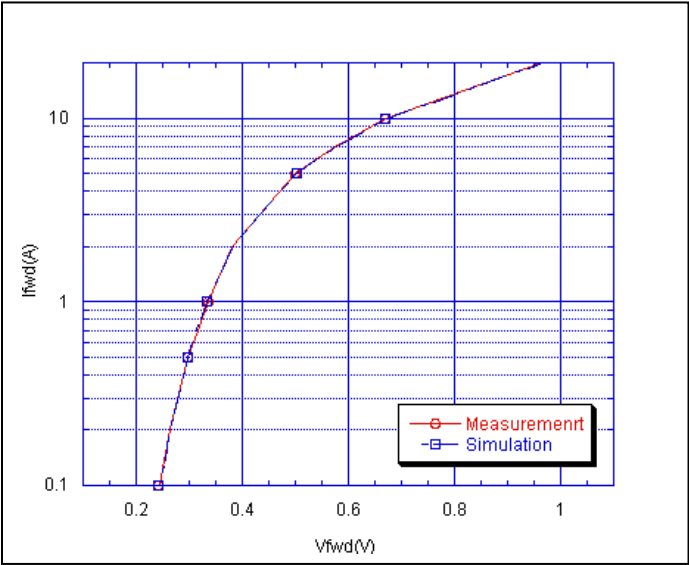


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

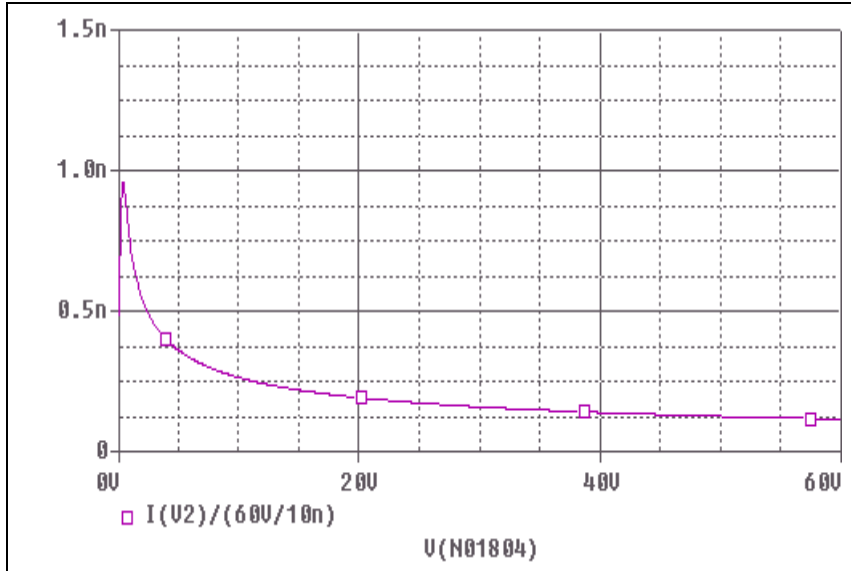


Simulation Result

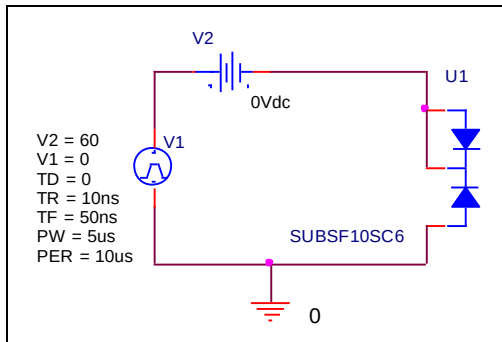
I_{fwd} (A)	V_{fwd} (V) Measurement	V_{fwd} (V) Simulation	%Error
0.1	0.245	0.243	-0.82
0.2	0.263	0.264	0.53
0.5	0.298	0.298	-0.03
1	0.335	0.333	-0.48
2	0.380	0.381	0.29
5	0.500	0.503	0.62
10	0.670	0.670	-0.04
20	0.965	0.966	0.06

Junction Capacitance Characteristic

Circuit Simulation Result

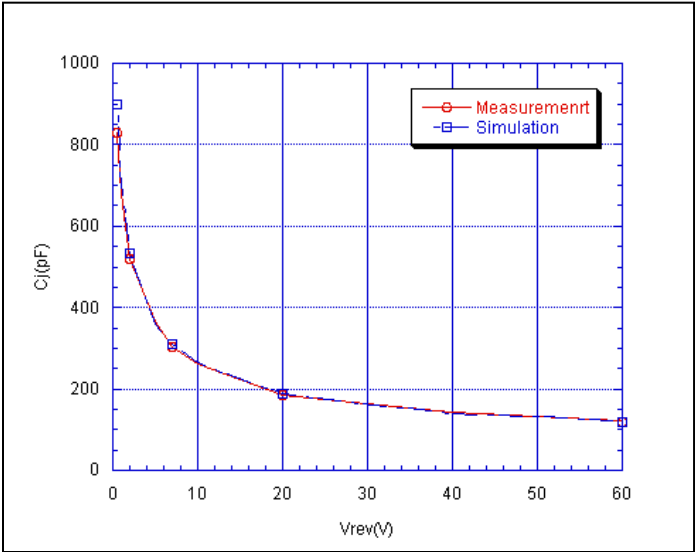


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	680.00	705.00	3.68
2	520.00	535.00	2.88
5	365.00	360.00	-1.37
10	260.00	264.00	1.54
20	186.00	190.00	2.15
40	142.00	138.80	-2.25
60	120.00	118.00	-1.67