

Device Modeling Report

COMPONENTS:
DIODE/ SCHOTTKY RECTIFIER / STANDARD
PART NUMBER: 1SS357
MANUFACTURER: TOSHIBA

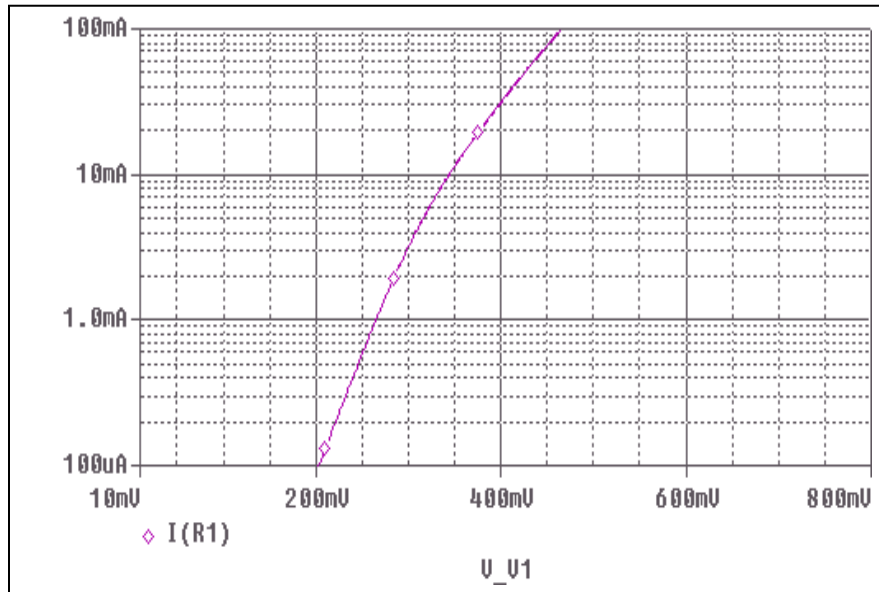


Bee Technologies Inc.

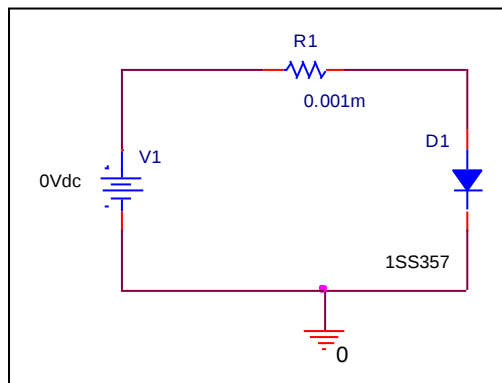
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

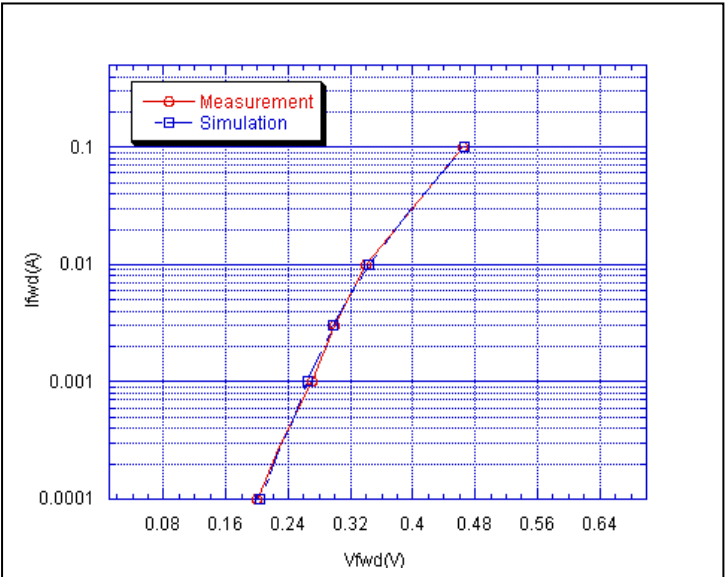


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

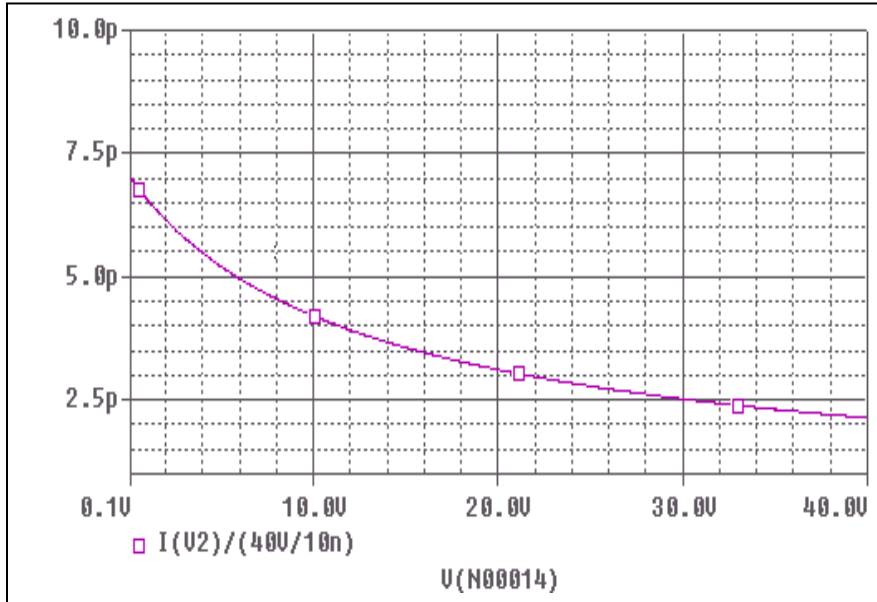


Simulation Result

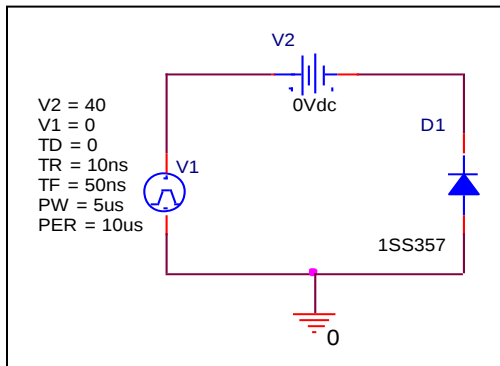
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.0001	0.200	0.203	1.55
0.0003	0.230	0.232	0.87
0.001	0.270	0.265	-1.93
0.003	0.300	0.298	-0.67
0.01	0.340	0.343	0.88
0.03	0.400	0.398	-0.58
0.1	0.465	0.465	0.06

Junction Capacitance Characteristic

Circuit Simulation Result

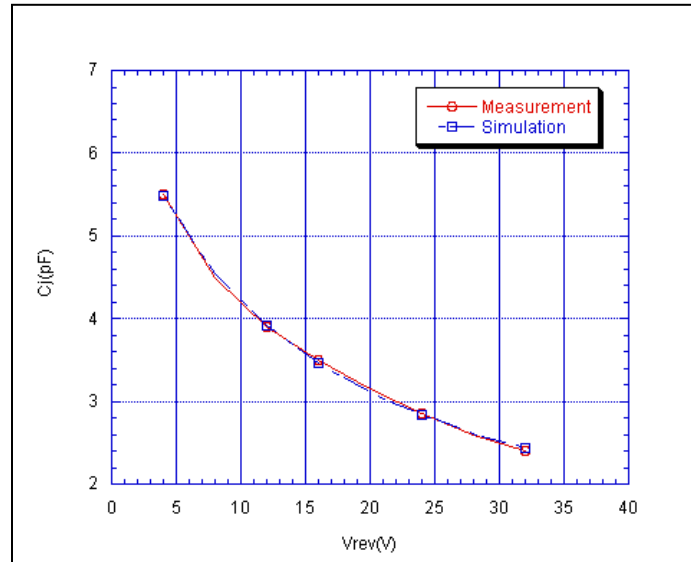


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0	14.000	14.000	0.00
4	5.500	5.478	-0.40
8	4.500	4.544	0.98
12	3.900	3.919	0.49
16	3.500	3.459	-1.17
20	3.150	3.111	-1.24
24	2.850	2.839	-0.39
28	2.60	2.61	0.54
32	2.40	2.43	1.25