

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: 1SS293
MANUFACTURER: TOSHIBA

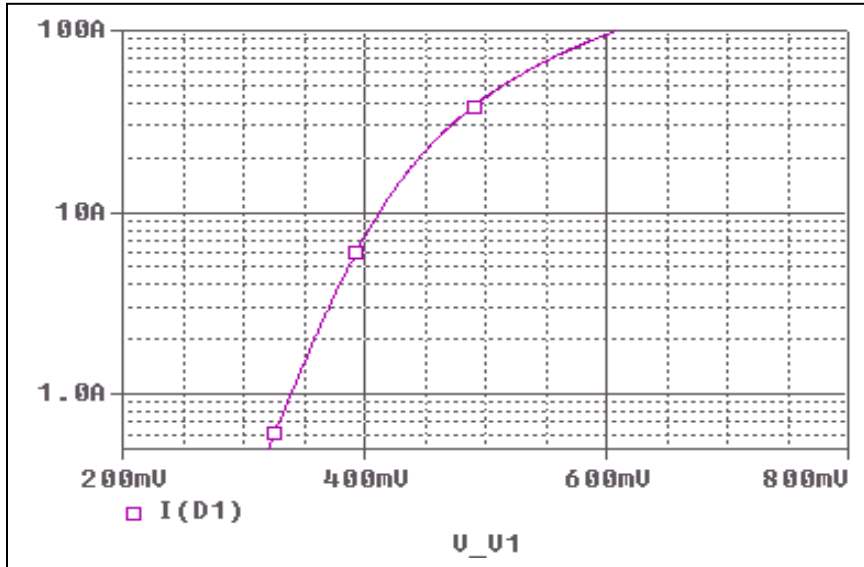


Bee Technologies Inc.

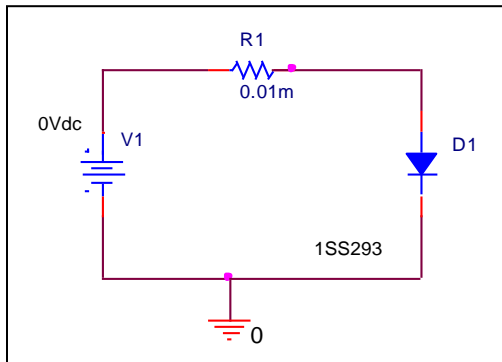
P Spice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

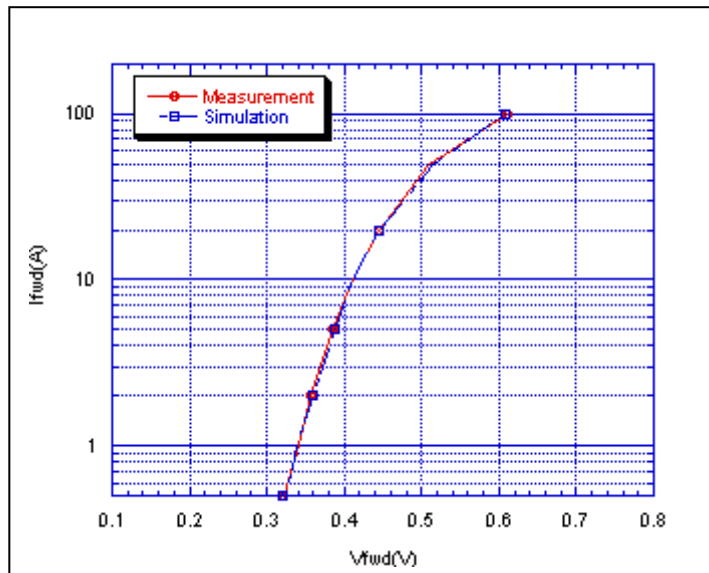


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

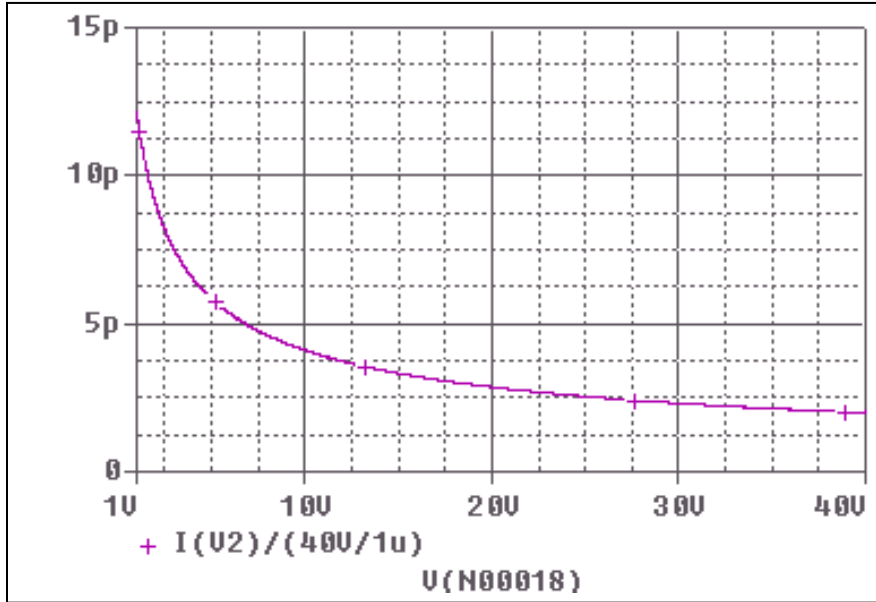


Simulation Result

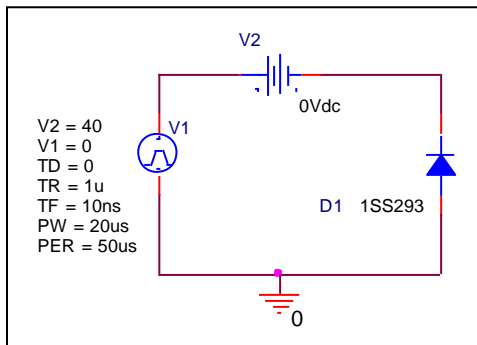
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
1	0.340	0.339	-0.21
2	0.358	0.358	0.08
5	0.385	0.387	0.49
10	0.410	0.412	0.51
20	0.445	0.445	0.07
50	0.510	0.515	0.92
100	0.610	0.609	-0.21

Junction Capacitance Characteristic

Circuit Simulation Result

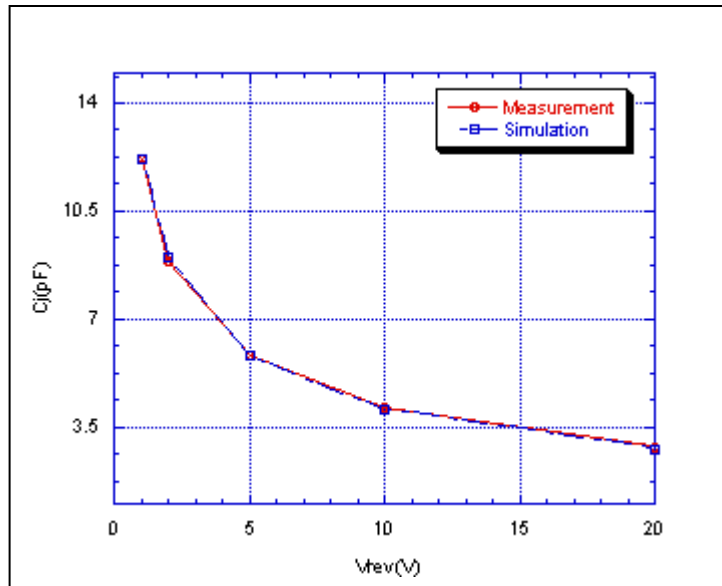


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	12.200	12.210	0.08
2	8.850	9.010	1.81
5	5.800	5.790	-0.17
10	4.100	4.050	-1.22
20	2.850	2.800	-1.75