

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: CUS02
MANUFACTURER: TOSHIBA

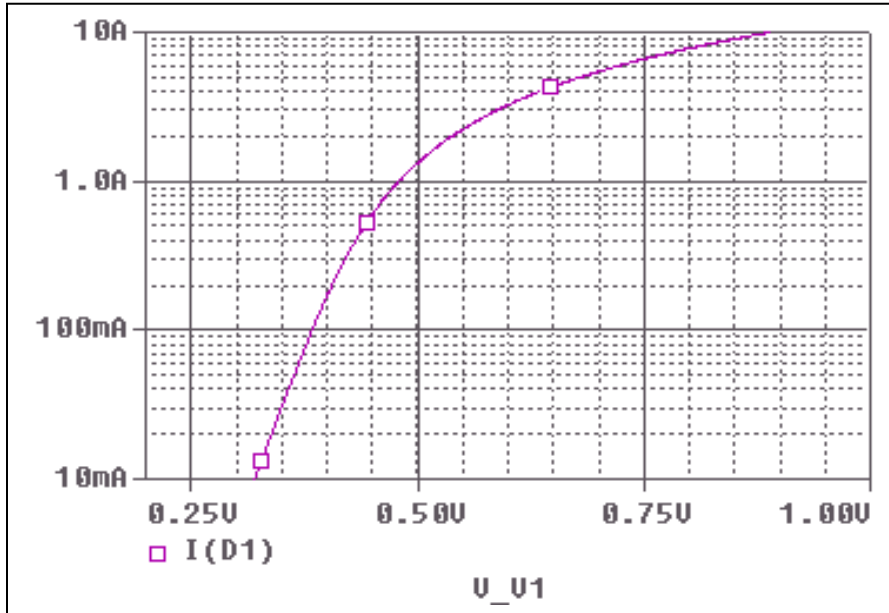


Bee Technologies Inc.

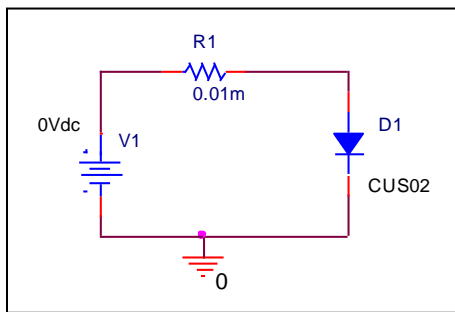
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

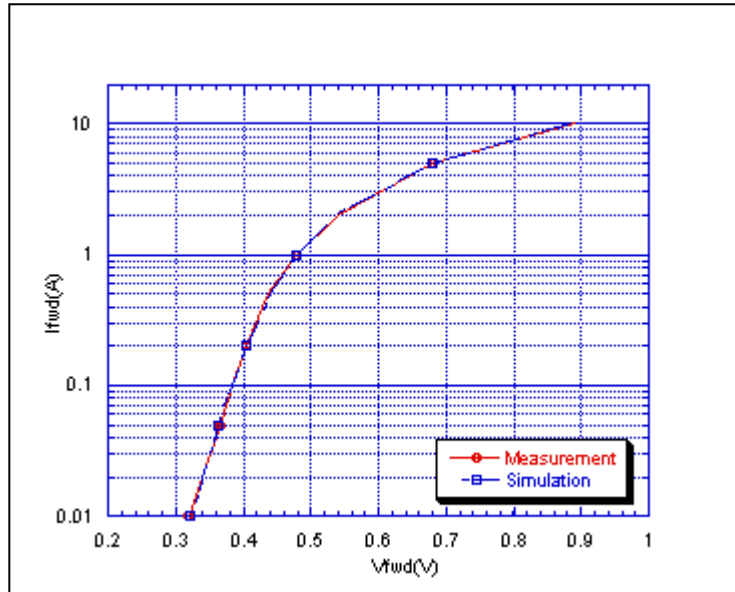


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

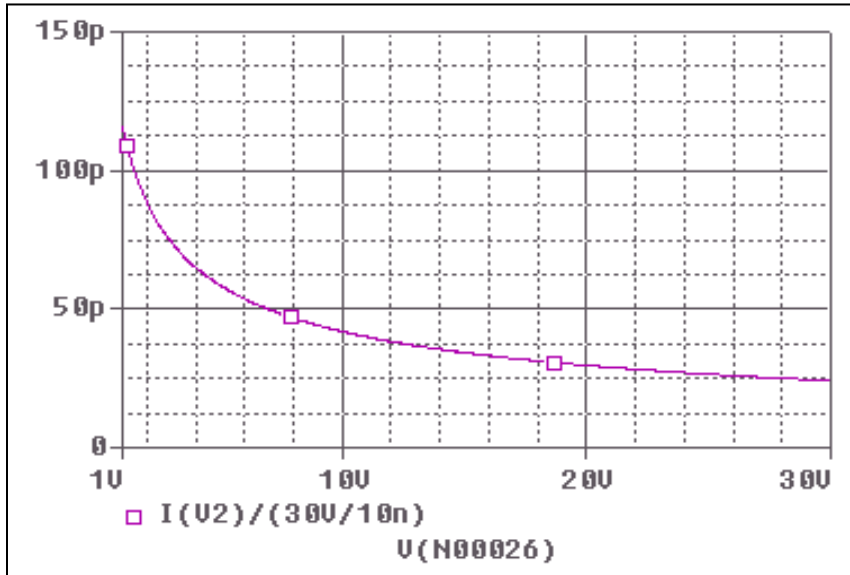


Simulation Result

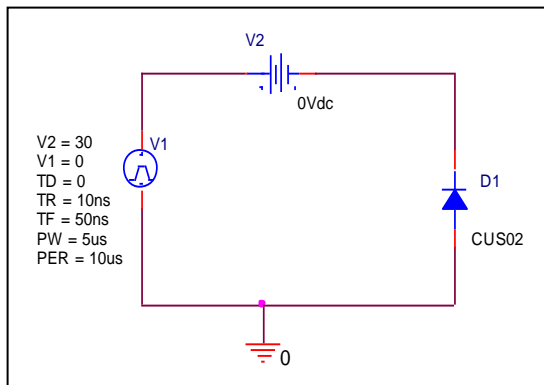
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.01	0.320	0.320	0.13
0.02	0.340	0.339	-0.38
0.05	0.365	0.364	-0.38
0.1	0.385	0.384	-0.18
0.2	0.405	0.406	0.12
0.5	0.438	0.441	0.78
1	0.478	0.480	0.33
2	0.540	0.538	-0.43
5	0.680	0.680	0.03
10	0.890	0.891	0.08

Junction Capacitance Characteristic

Circuit Simulation Result

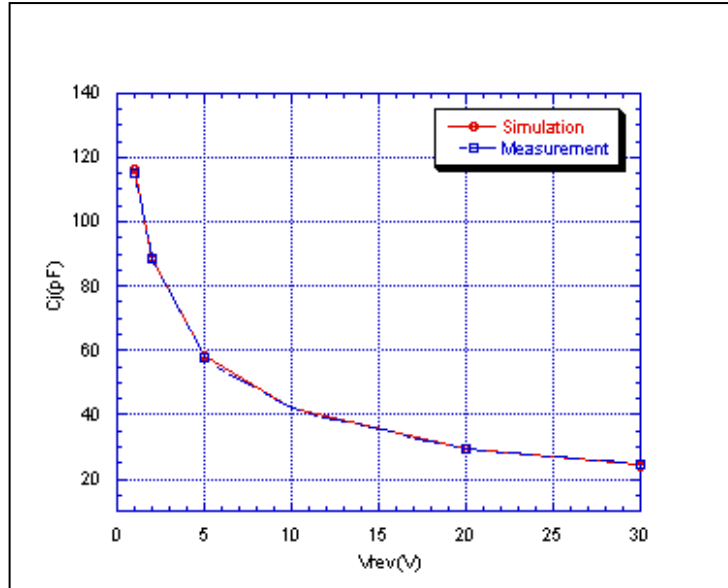


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	115.00	116.00	0.87
2	88.50	88.40	-0.11
5	58.00	58.50	0.86
10	42.00	41.80	-0.48
20	29.50	29.60	0.34
30	24.50	24.10	-1.63