

Device Modeling Report

COMPONENTS:
DIODE/ SCHOTTKY RECTIFIER / STANDARD
PART NUMBER: CMS10
MANUFACTURER: TOSHIBA

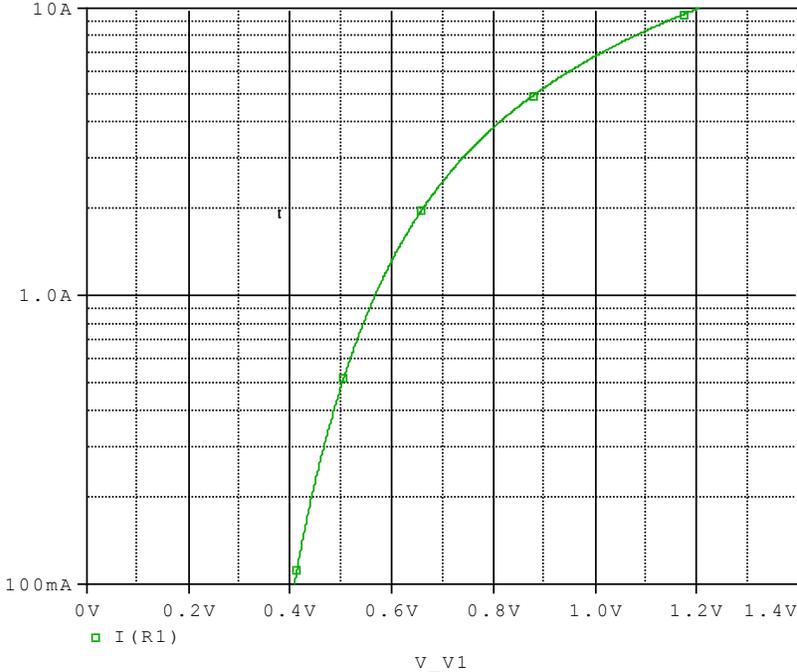


Bee Technologies Inc.

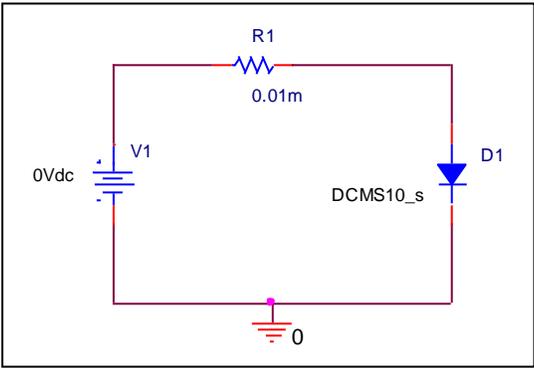
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

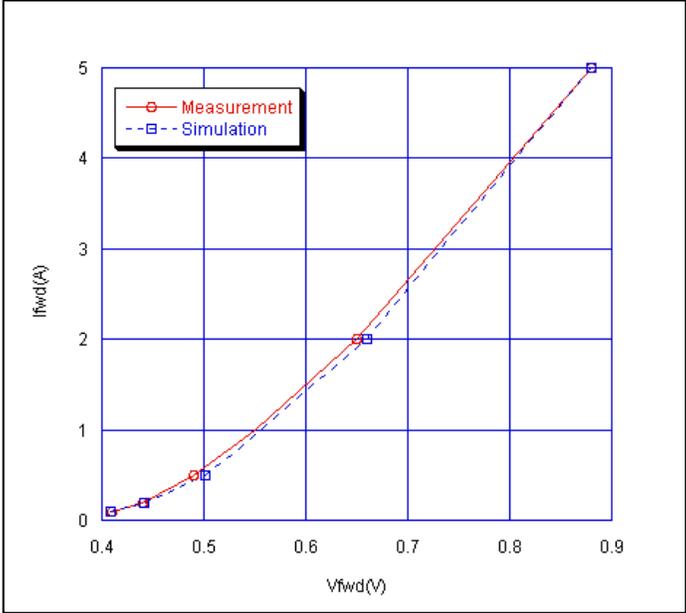


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

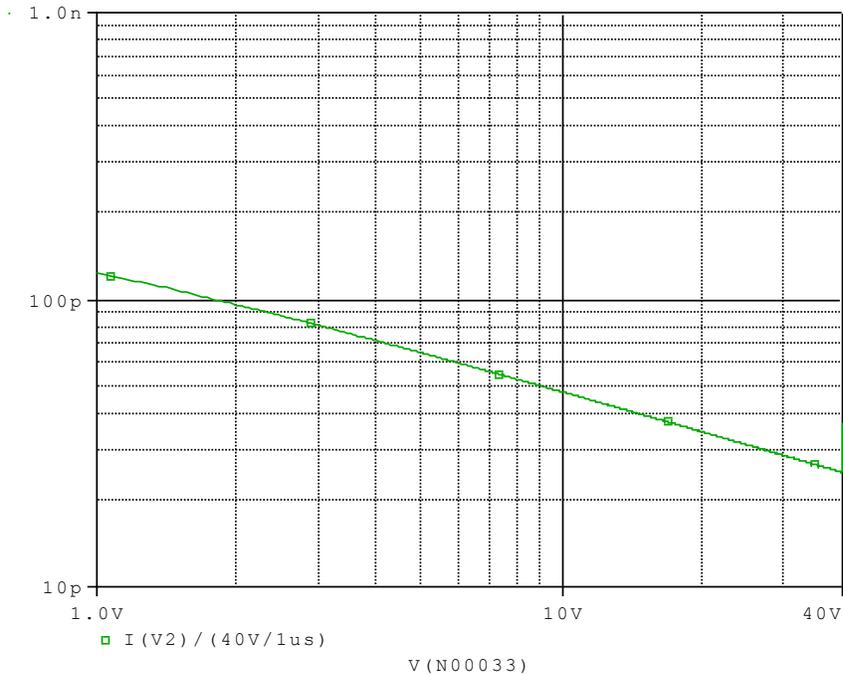


Simulation Result

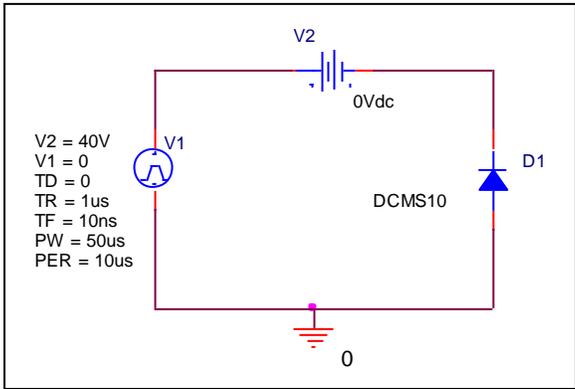
Ifwd(A)	Vfwd(V)		%Error
	Measurement	Simulation	
0.100	0.410	0.409	- 0.244
0.200	0.440	0.442	0.455
0.500	0.490	0.501	2.245
1.000	0.550	0.556	1.091
2.000	0.650	0.660	1.538
5.000	0.880	0.880	0.000

Capacitance Characteristic

Circuit Simulation Result

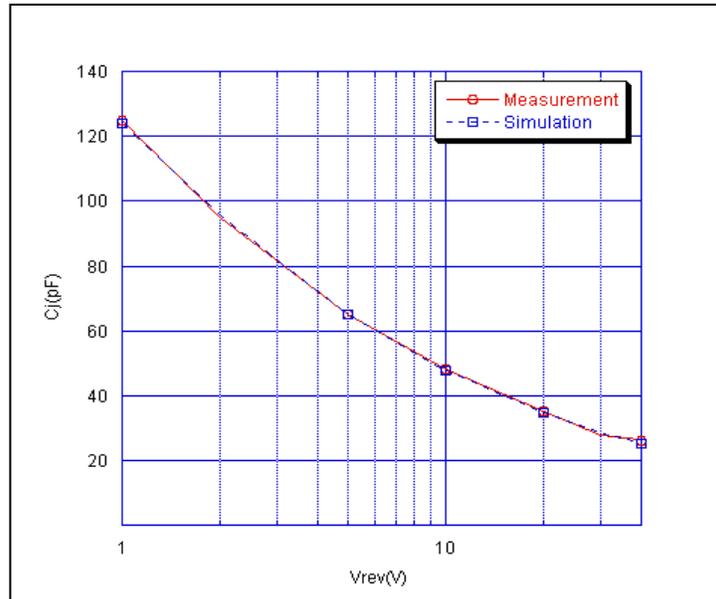


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF)		%Error
	Measurement	Simulation	
1.000	125.000	124.199	- 0.641
2.000	95.000	95.947	0.997
5.000	65.000	65.265	0.408
10.000	48.000	47.657	- 0.715
20.000	35.000	34.678	- 0.920
30.000	28.000	28.634	2.264
40.000	26.000	25.200	- 3.077