

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER /STANDARD
PART NUMBER: 10FWJ2C48M
MANUFACTURER: TOSHIBA

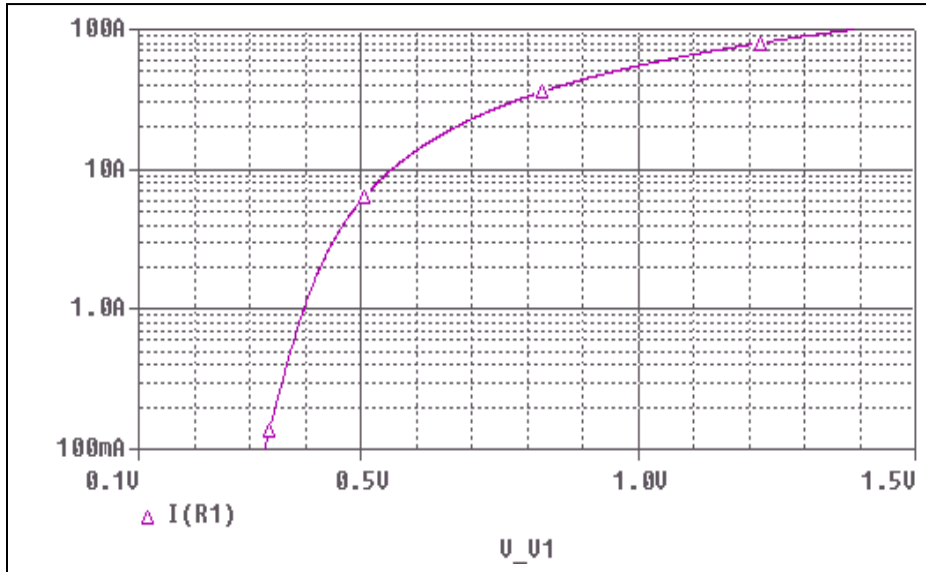


Bee Technologies Inc.

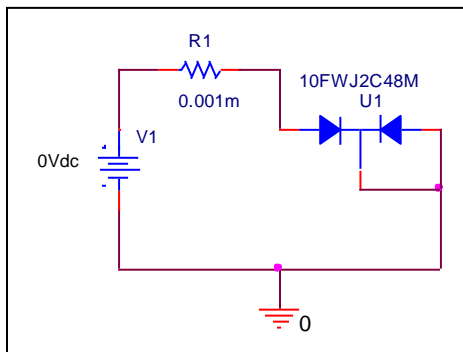
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

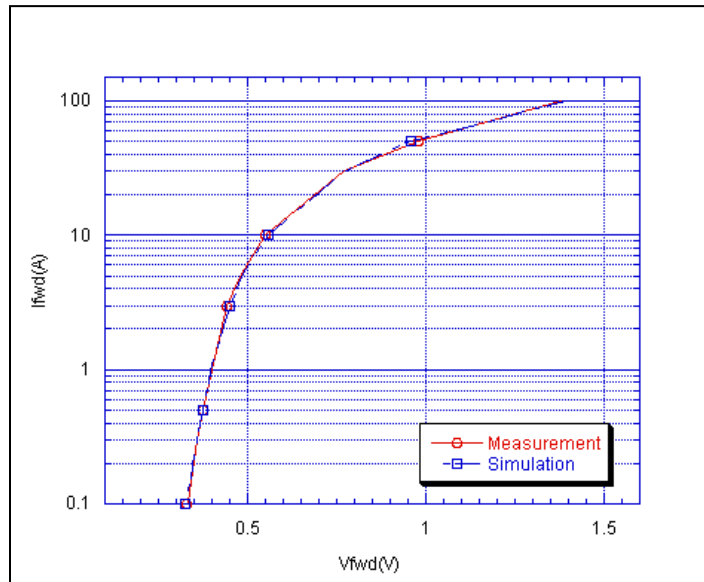


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

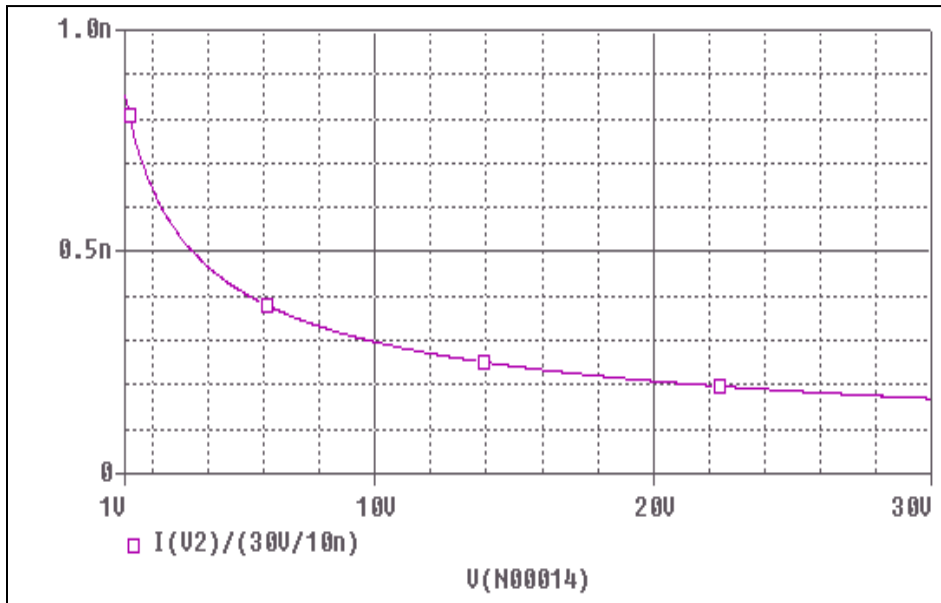


Simulation Result

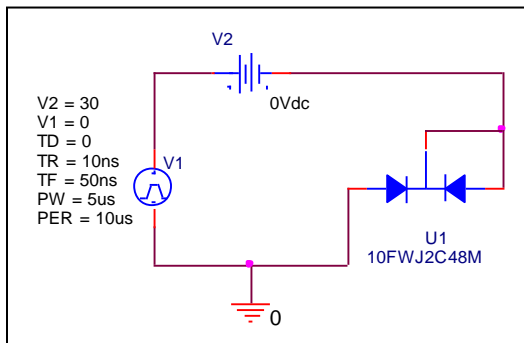
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.330	0.327	-0.91
0.3	0.360	0.358	-0.64
0.5	0.375	0.374	-0.32
1	0.400	0.398	-0.48
3	0.440	0.450	2.27
5	0.480	0.485	1.04
10	0.550	0.557	1.27
30	0.771	0.770	-0.13
50	0.980	0.957	-2.34
100	1.380	1.391	0.80

Junction Capacitance Characteristic

Circuit Simulation Result

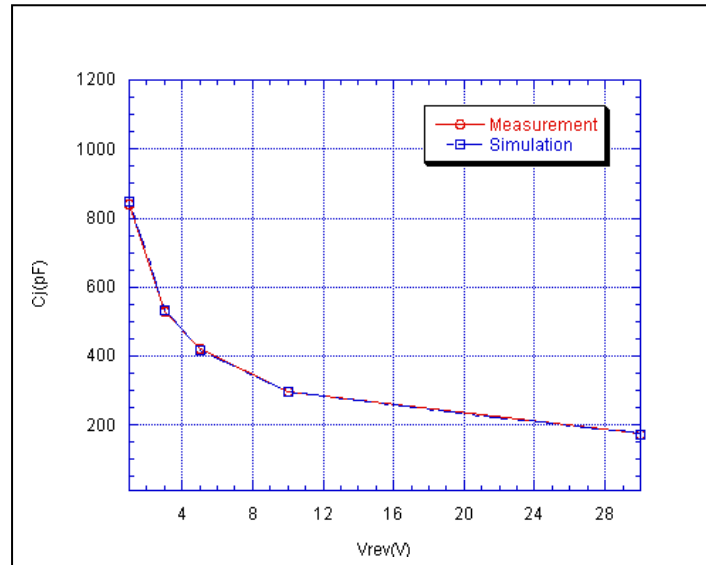


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	840	845.9	0.70238
3	530	532	0.37735
5	420	418.2	0.42857
10	295	296.6	0.54237
30	170	170.6	0.35294