

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTTKY RECTIFIER / STANDARD
PART NUMBER: 5FWJ2C48M
MANUFACTURER: TOSHIBA

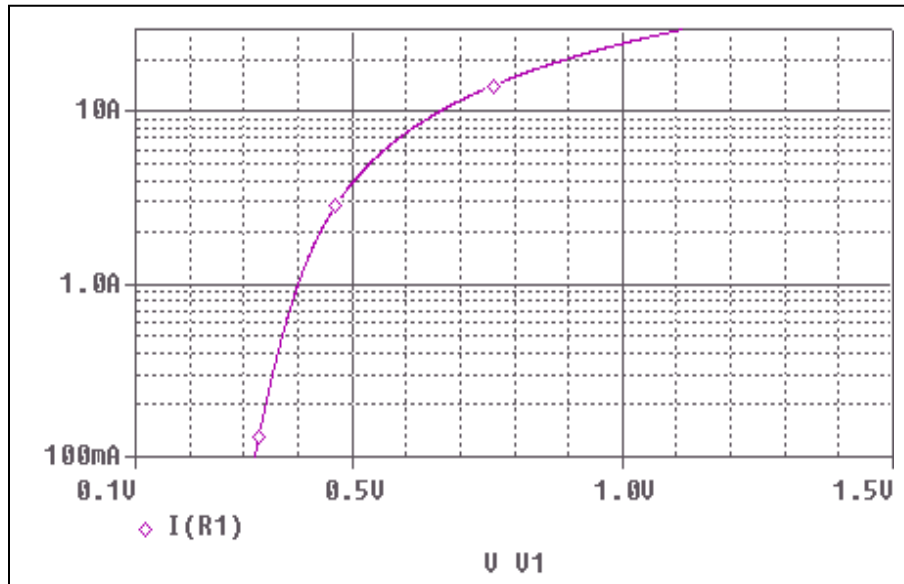


Bee Technologies Inc.

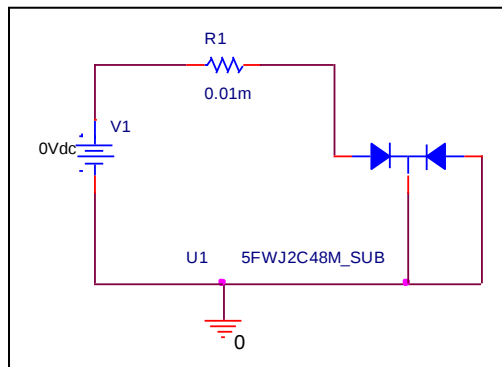
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

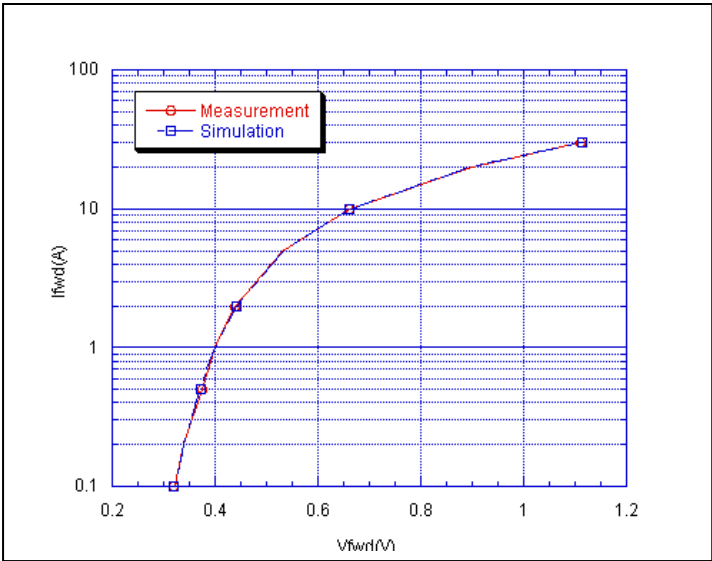


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

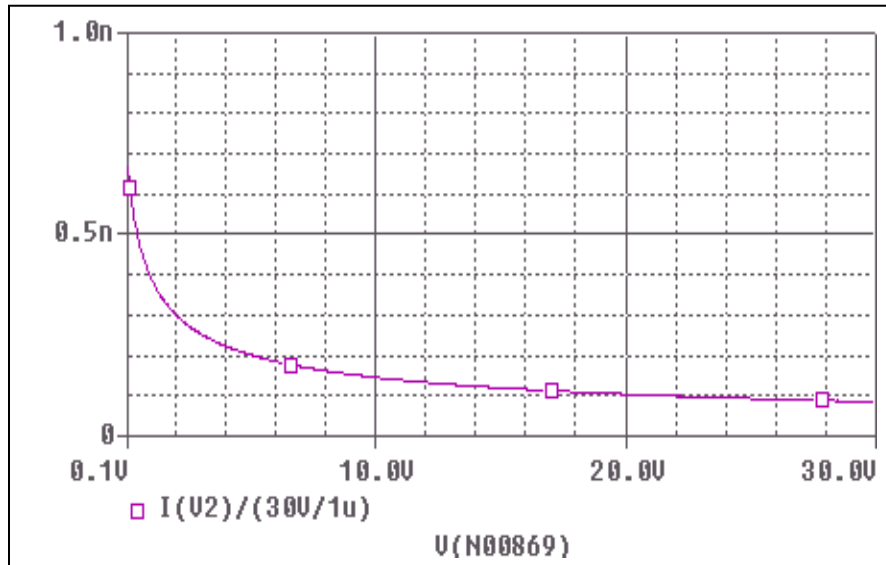


Simulation Result

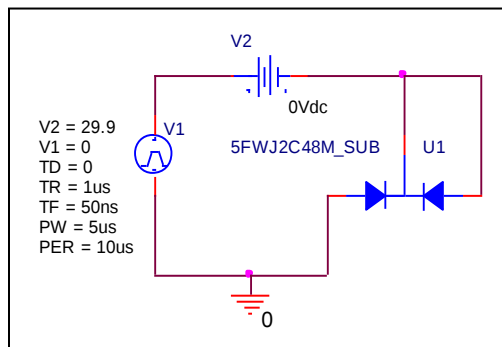
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.320	0.320	0.09
0.2	0.340	0.340	0.12
0.5	0.375	0.371	-1.04
1	0.400	0.400	0.10
2	0.440	0.442	0.34
5	0.530	0.533	0.55
10	0.660	0.662	0.36
20	0.900	0.894	-0.68
30	1.110	1.115	0.45

Junction Capacitance Characteristic

Circuit Simulation Result

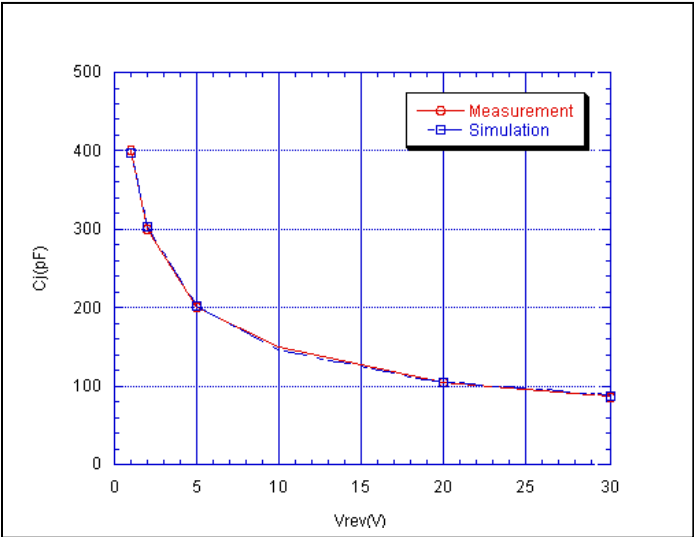


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	400.000	397.714	-0.57
2	300.000	303.388	1.13
5	200.000	202.529	1.26
10	150.000	146.004	-2.66
20	105.000	104.393	-0.58
30	85.000	87.000	2.35