

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: 10GWJ2CZ47C
MANUFACTURER: TOSHIBA

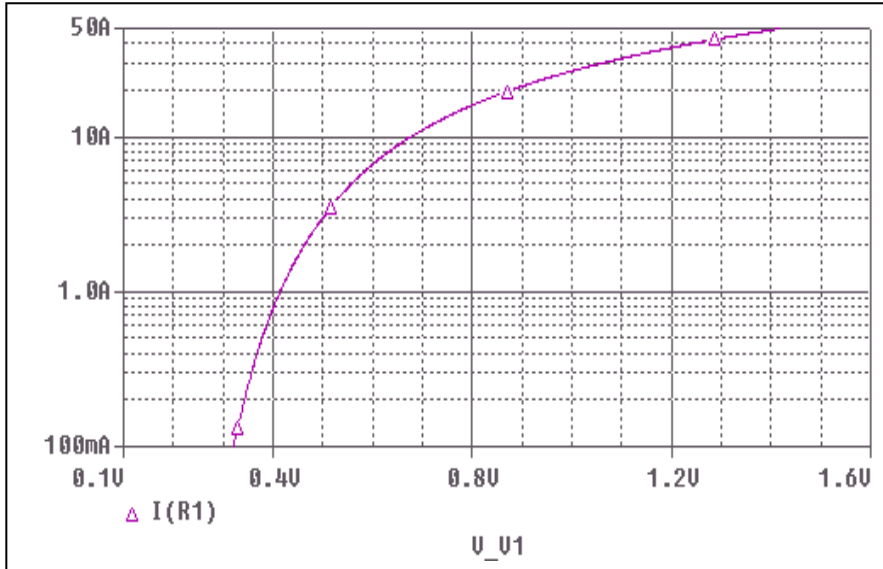


Bee Technologies Inc.

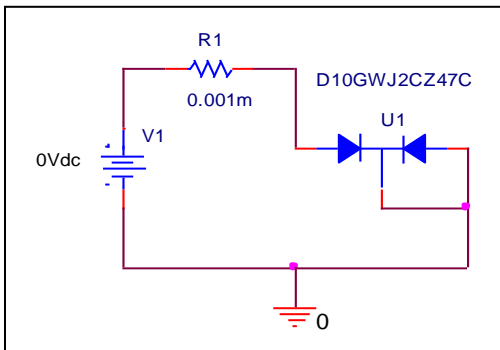
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

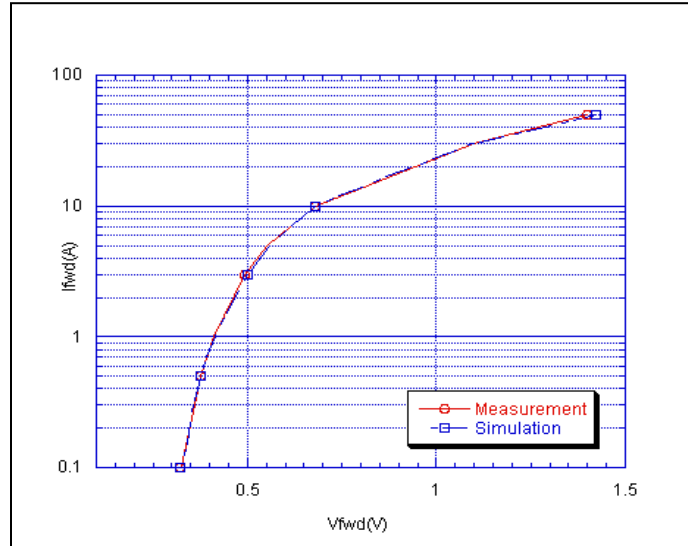


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

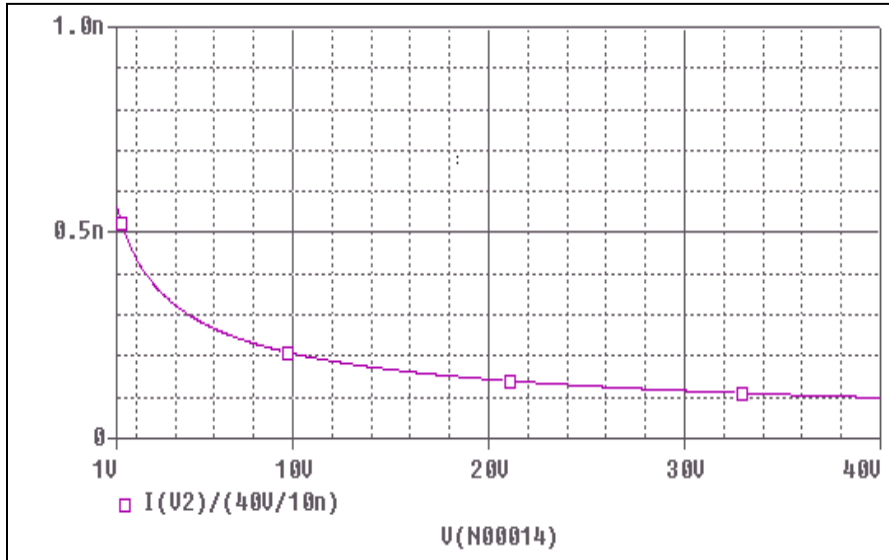


Simulation Result

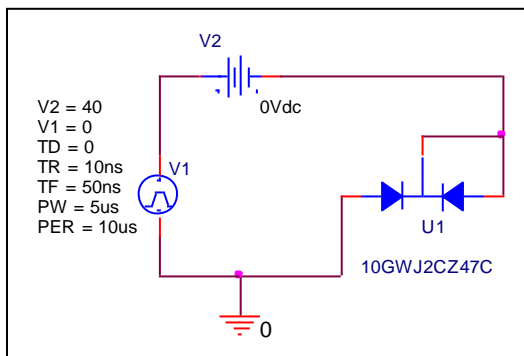
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.320	0.320	0.06
0.3	0.360	0.357	-0.86
0.5	0.377	0.378	0.27
1	0.410	0.414	0.98
3	0.492	0.499	1.42
5	0.550	0.559	1.58
10	0.680	0.678	-0.32
30	1.100	1.094	-0.55
50	1.400	1.421	1.49

Junction Capacitance Characteristic

Circuit Simulation Result

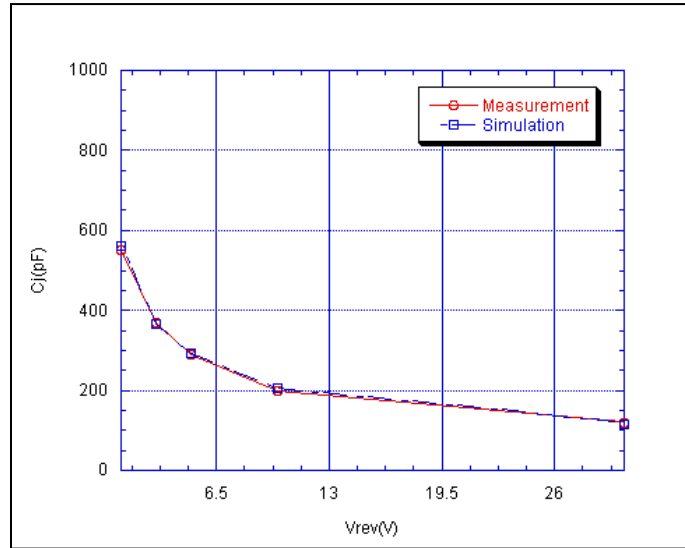


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	550.000	562.200	2.22
3	370.000	367.300	-0.73
5	289.000	291.300	0.80
10	200.000	206.400	3.20
30	120.000	115.800	-3.50
40	100.000	99.700	-0.30