

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER /STANDARD
PART NUMBER: U30GWJ2C48C
MANUFACTURER: TOSHIBA

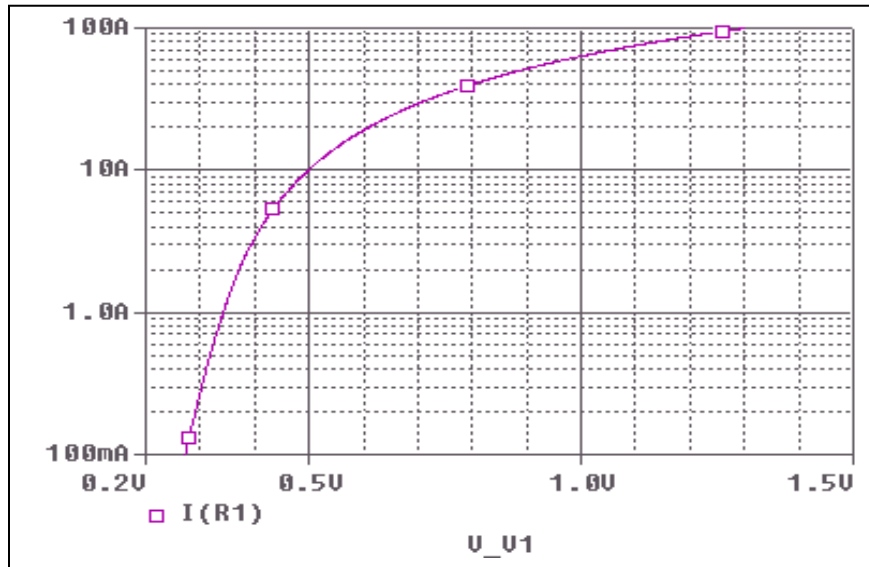


Bee Technologies Inc.

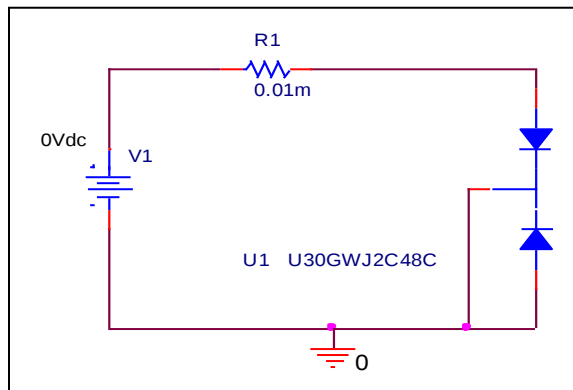
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

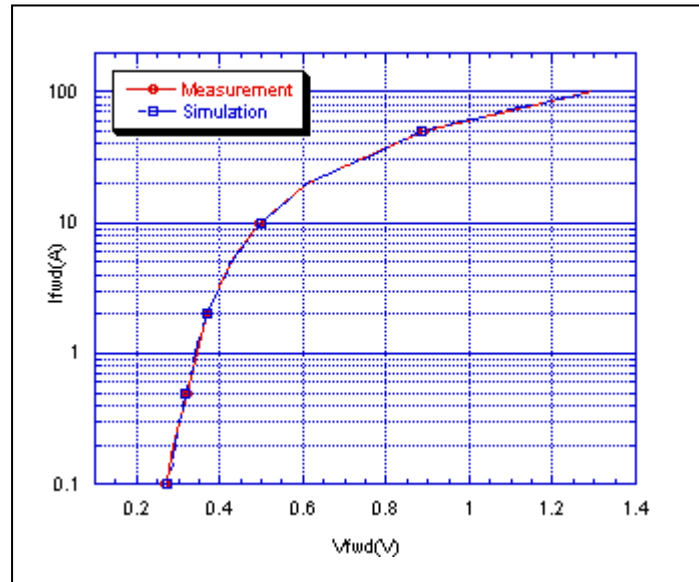


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

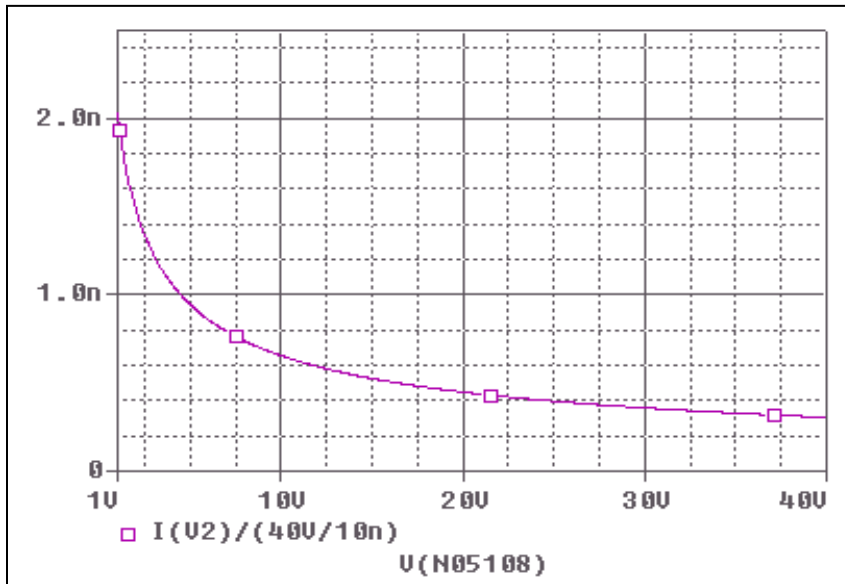


Simulation Result

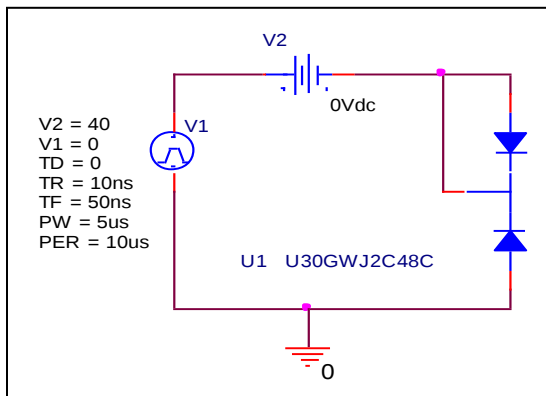
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.270	0.272	0.70
0.2	0.290	0.291	0.34
0.5	0.320	0.318	-0.53
1	0.347	0.342	-1.38
2	0.370	0.372	0.43
5	0.425	0.429	0.96
10	0.497	0.499	0.32
20	0.610	0.610	-0.05
50	0.890	0.885	-0.52
100	1.300	1.303	0.26

Junction Capacitance Characteristic

Circuit Simulation Result

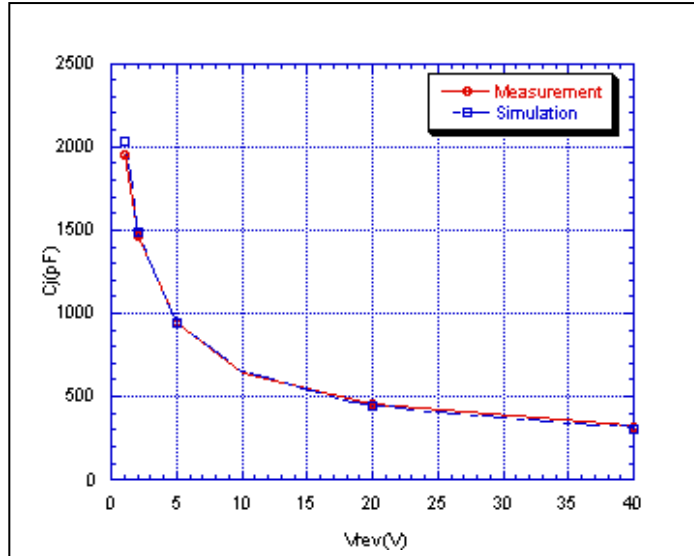


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	1950.00	2027.80	3.99
2	1460.00	1487.10	1.86
5	940.00	944.70	0.50
10	645.00	654.00	1.40
20	450.00	448.50	-0.33
40	310.00	307.00	-0.97