

Device Modeling Report

COMPONENTS:
DIODE/ SCHOTTKY RECTIFIER / STANDARD
PART NUMBER: 11DQ09
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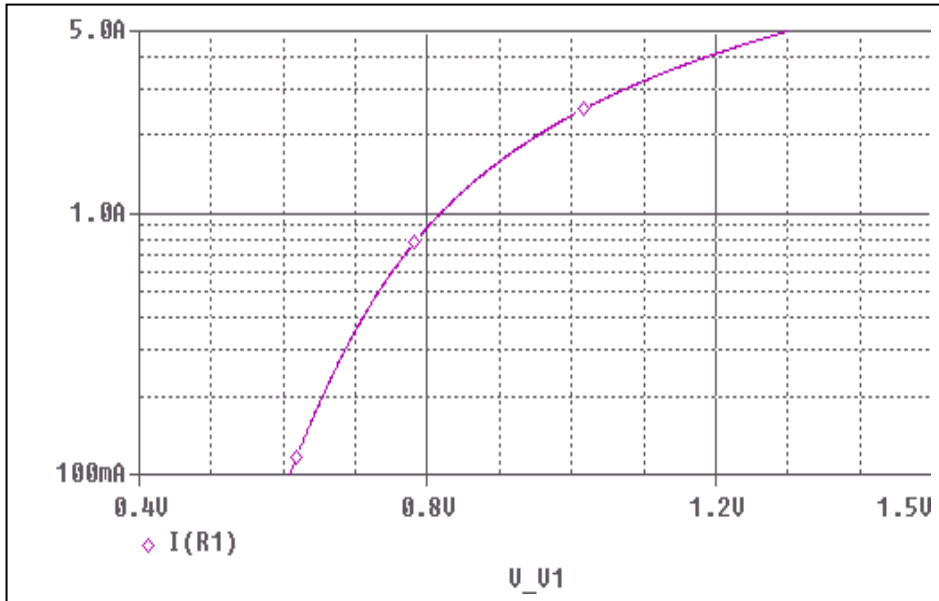


Bee Technologies Inc.

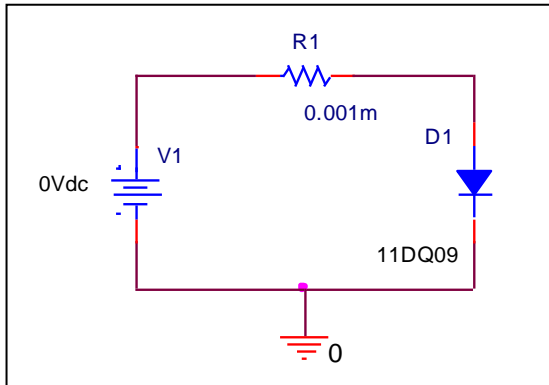
P Spice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

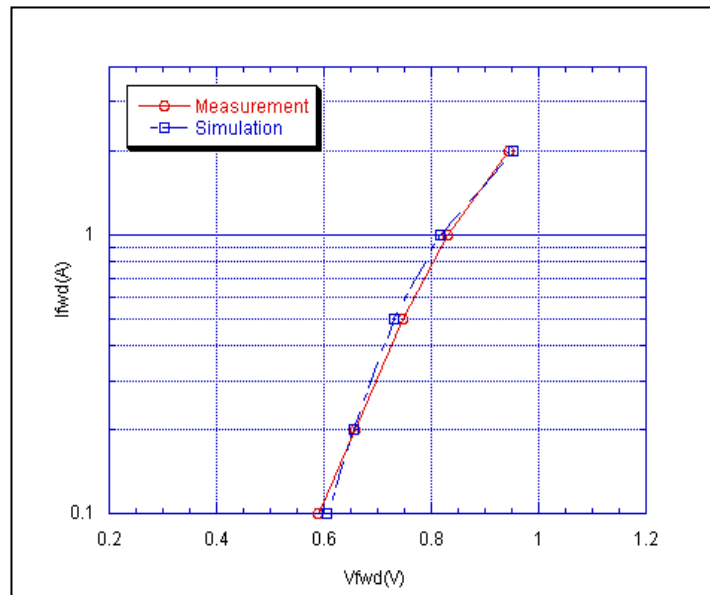


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

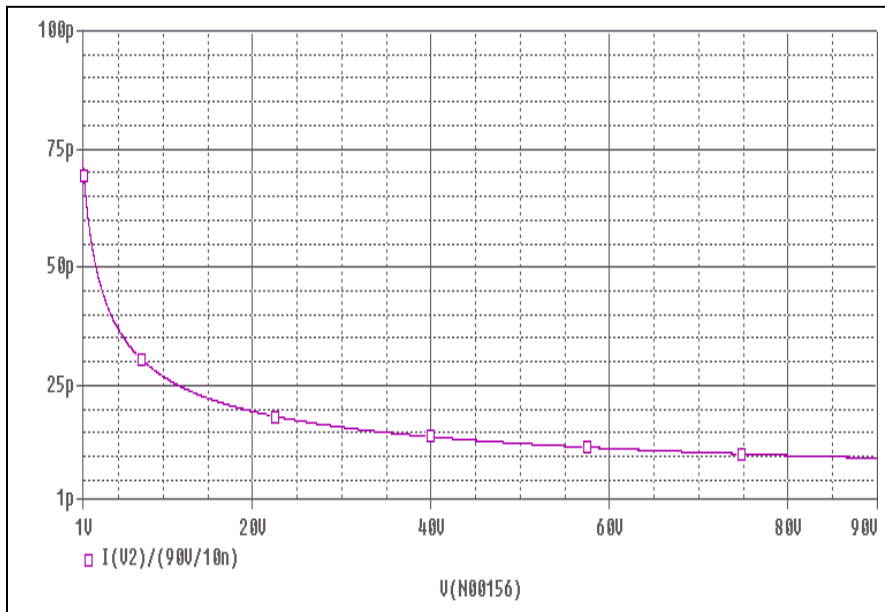


Simulation Result

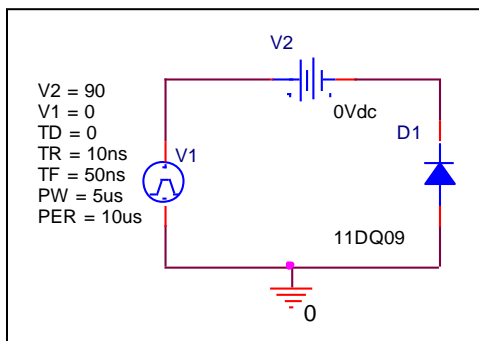
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.59	0.61	3.06
0.2	0.66	0.66	-0.46
0.5	0.75	0.73	-2.14
1	0.83	0.82	-1.45
2	0.95	0.95	0.85

Junction Capacitance Characteristic

Circuit Simulation Result

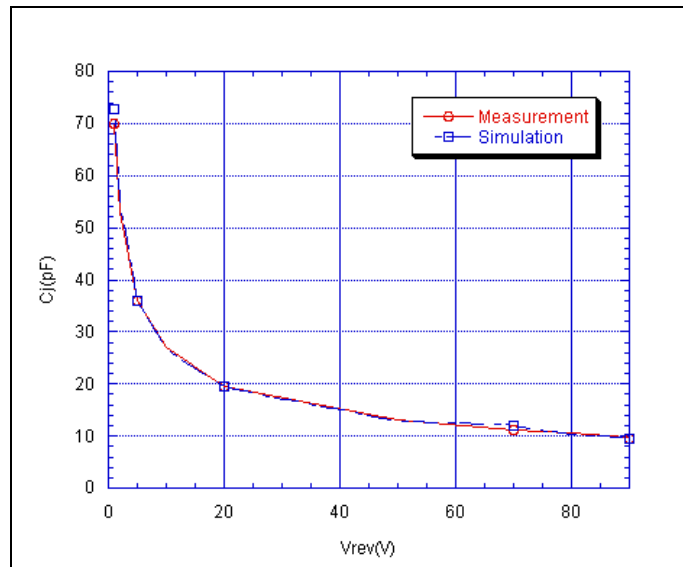


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	70.00	72.82	4.03
2	53.00	54.71	3.22
5	36.00	35.99	-0.03
10	27.00	26.81	-0.71
20	19.50	19.55	0.26
50	13.10	12.73	-2.80
70	11.20	11.88	6.07
80	10.50	10.22	-2.70
90	9.60	9.50	-1.04