

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTTKY RECTIFIER / STANDARD
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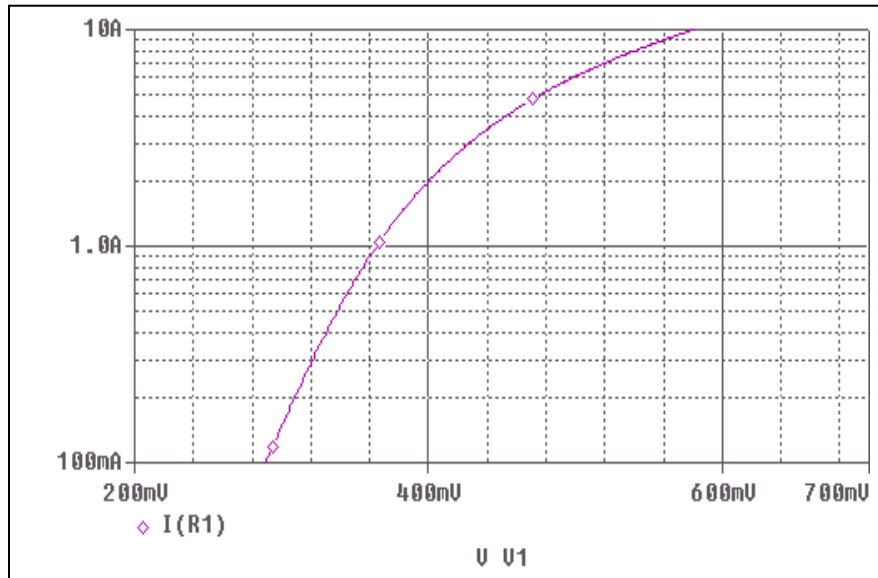


Bee Technologies Inc.

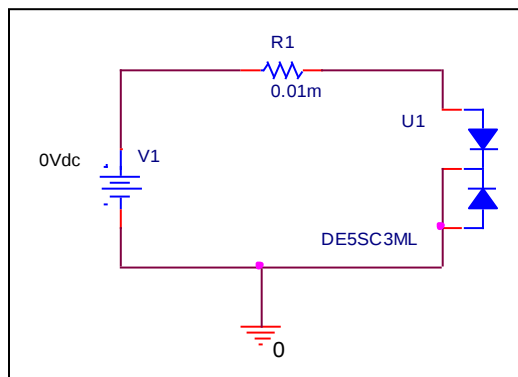
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

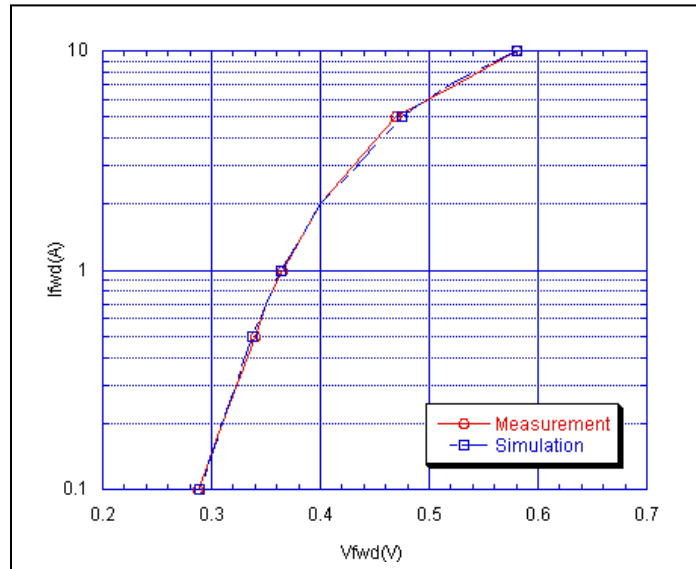


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

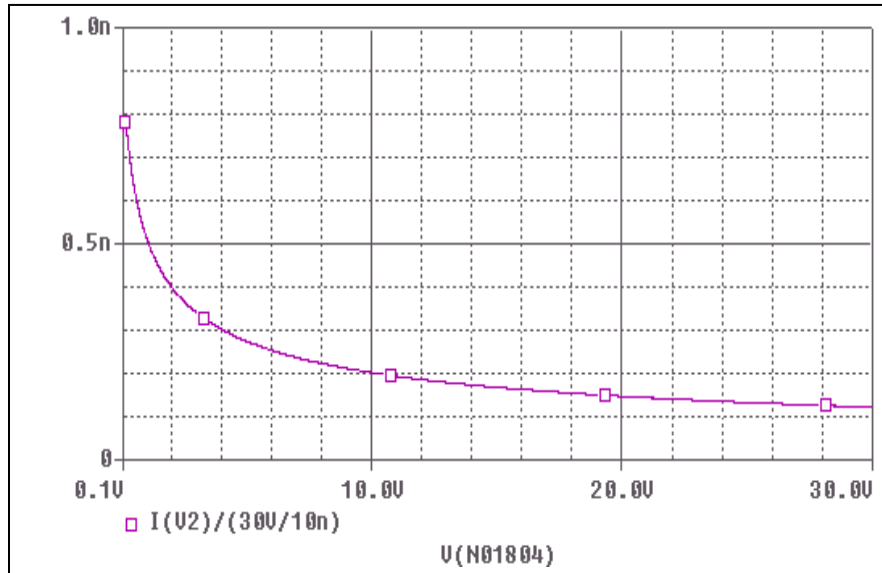


Simulation Result

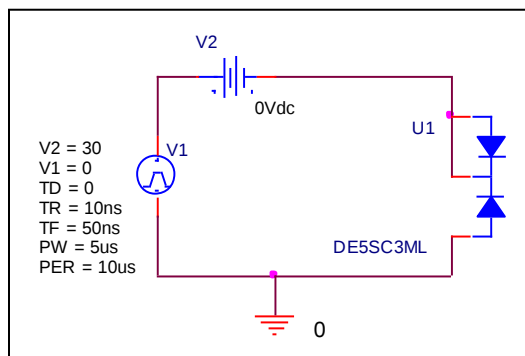
I_{fwd} (A)	V_{fwd} (V) Measurement	V_{fwd} (V) Simulation	%Error
0.1	0.288	0.289	0.49
0.2	0.310	0.309	-0.29
0.5	0.340	0.338	-0.59
1	0.365	0.365	-0.11
2	0.402	0.400	-0.50
5	0.471	0.475	0.85
10	0.580	0.581	0.17

Junction Capacitance Characteristic

Circuit Simulation Result

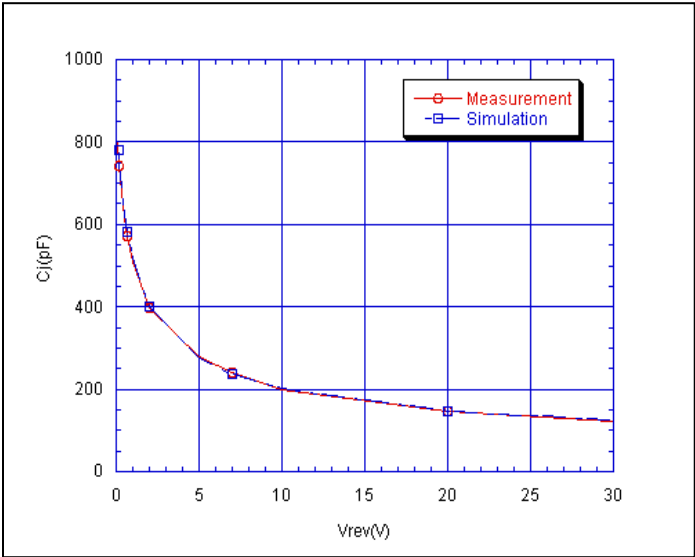


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.1	790.00	760.00	-3.80
0.2	752.00	779.90	3.71
0.5	616.00	624.80	1.43
1	510.00	519.10	1.78
2	397.00	402.40	1.36
5	280.00	275.00	-1.79
10	199.00	202.20	1.61
20	145.00	147.30	1.59
30	120.00	122.60	2.17