

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: ECL06B03
MANUFACTURER: NIEC

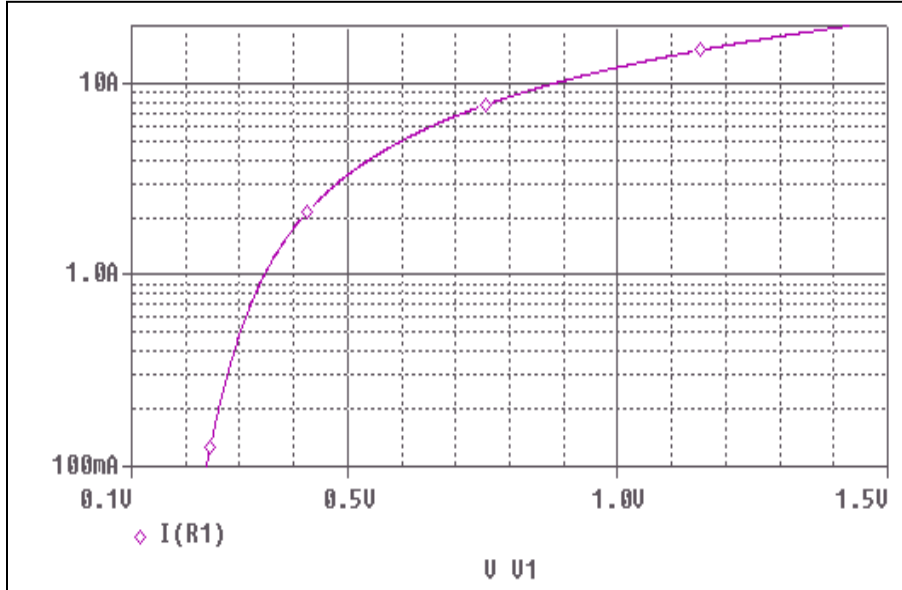


Bee Technologies Inc.

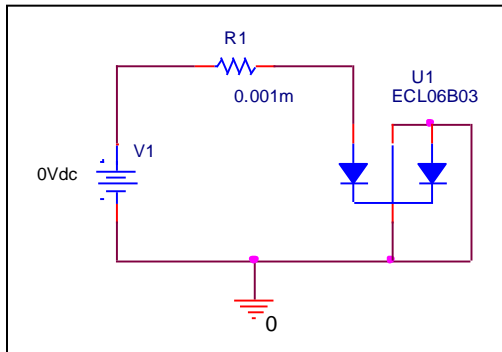
P Spice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

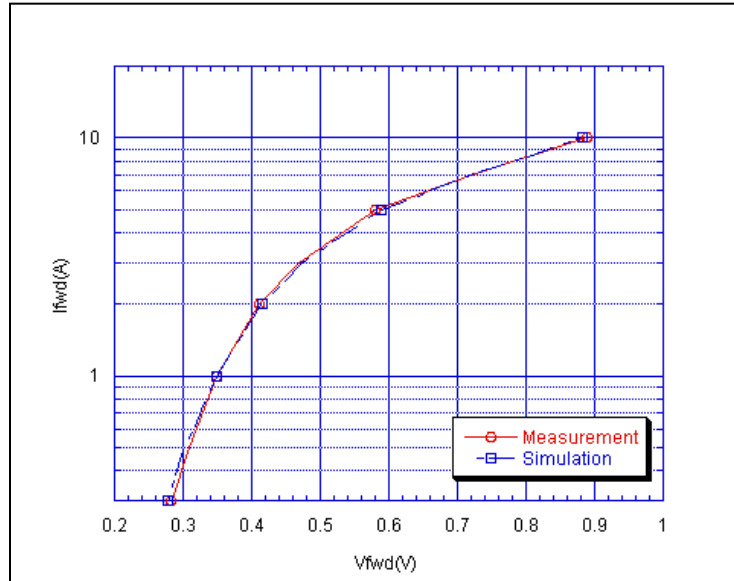


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

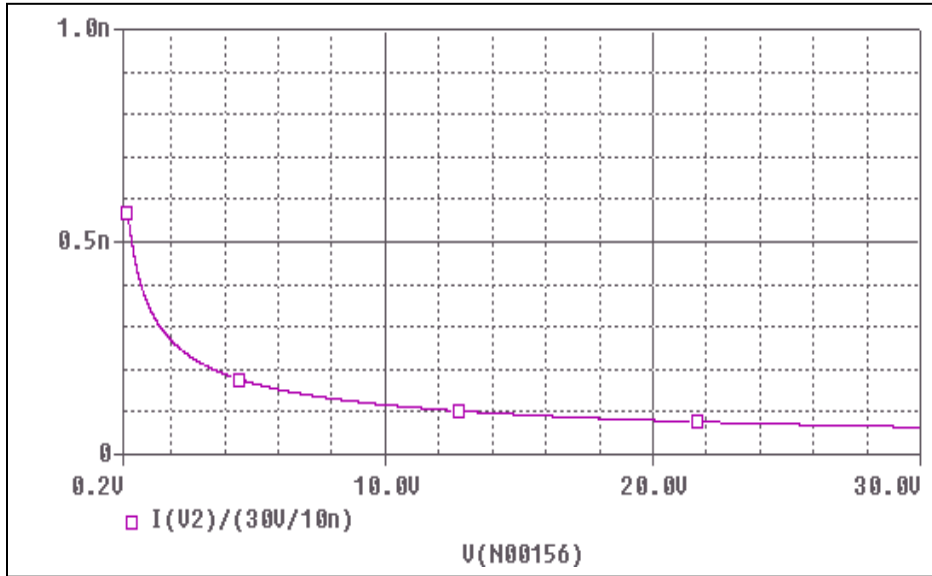


Simulation Result

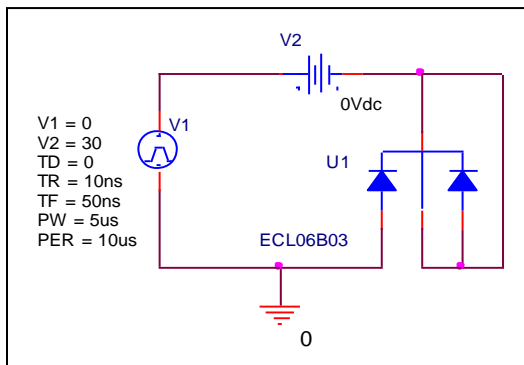
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.3	0.283	0.278	-1.77
0.5	0.310	0.302	-2.58
1	0.350	0.348	-0.57
2	0.412	0.415	0.73
5	0.580	0.590	1.72
10	0.890	0.883	-0.79

Capacitance Characteristic

Circuit Simulation Result

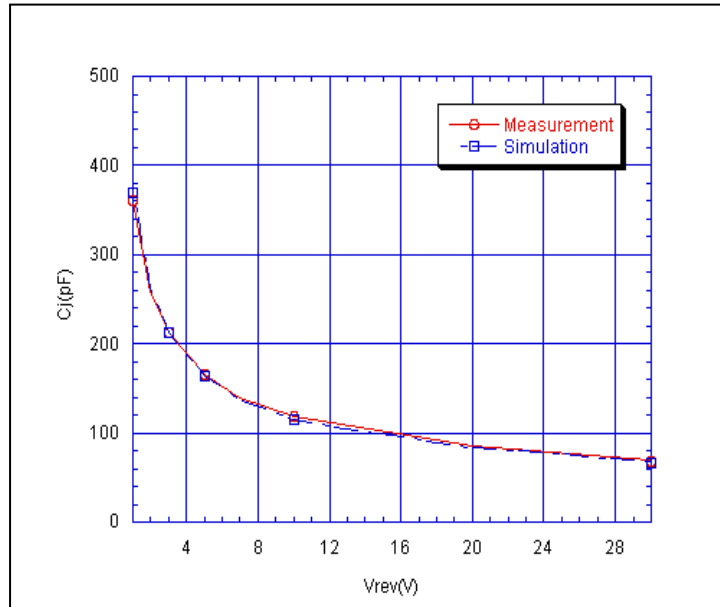


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

V_{rev} (V)	C_j (pF) Measurement	C_j (pF) Simulation	%Error
1	360.000	370.000	2.78
2	258.000	262.000	1.55
5	165.000	164.000	-0.61
10	118.000	115.000	-2.54
20	85.000	83.000	-2.35
30	68.000	66.000	-2.94