

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: DE5PC3
MANUFACTURER: SHINDENGEN

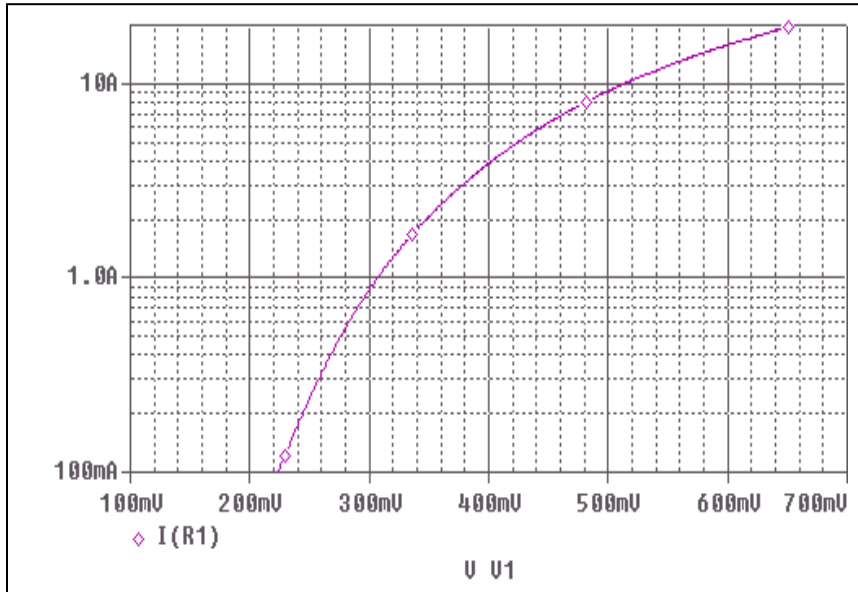


Bee Technologies Inc.

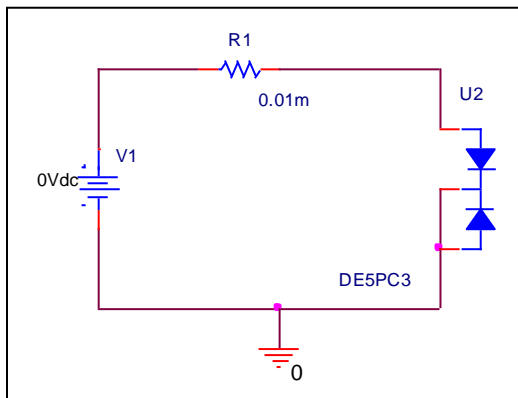
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

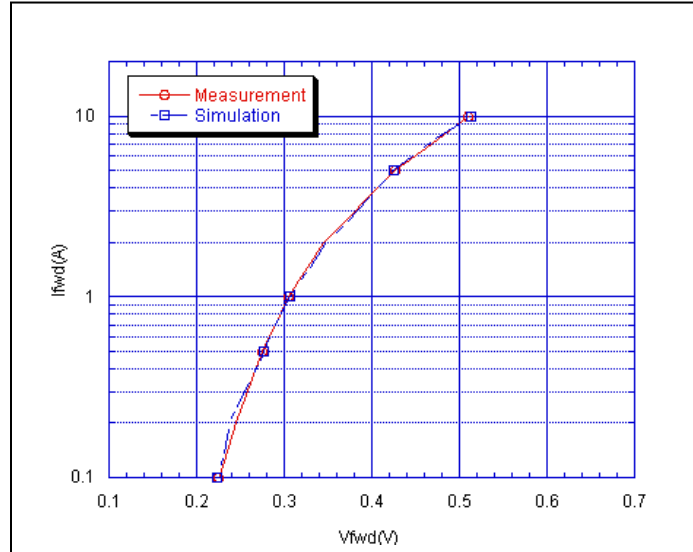


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

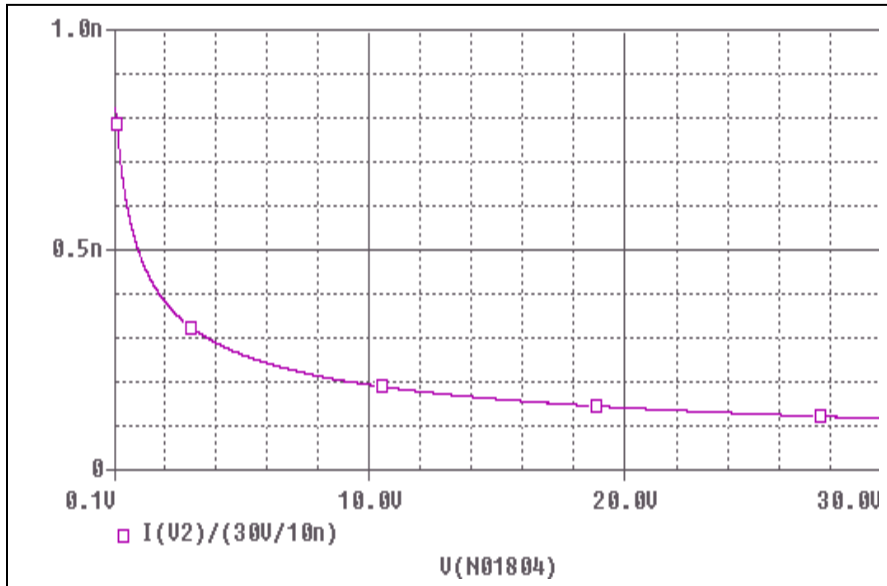


Simulation Result

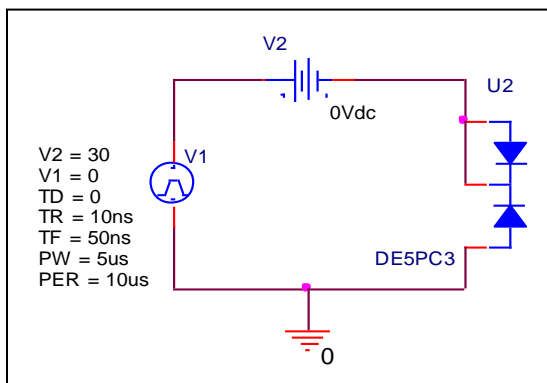
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.225	0.224	-0.67
0.2	0.245	0.238	-2.78
0.5	0.275	0.276	0.36
1	0.305	0.307	0.59
2	0.345	0.348	0.84
5	0.427	0.425	-0.56
10	0.510	0.514	0.76

Junction Capacitance Characteristic

Circuit Simulation Result

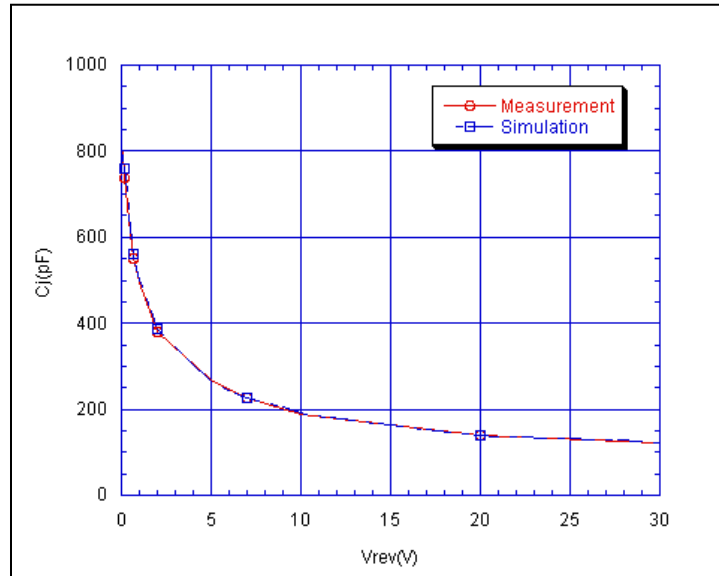


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0.1	800.00	820.20	2.53
0.2	740.00	758.00	2.43
0.5	610.00	621.50	1.89
1	495.00	500.30	1.07
2	380.00	385.70	1.50
5	270.00	263.30	-2.48
10	190.00	193.50	1.84
20	140.00	141.10	0.79
30	120.00	118.70	-1.08