

Device Modeling Report

COMPONENTS:
DIODE/ SCHOOTKY RECTIFIER / STANDARD
PART NUMBER: D3FP3
MANUFACTURER: SHINDENGEN

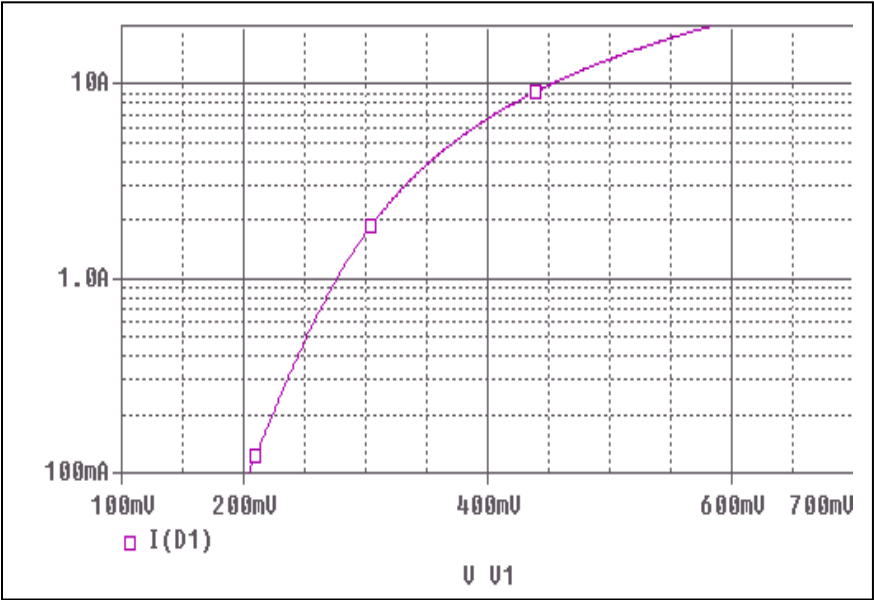


Bee Technologies Inc.

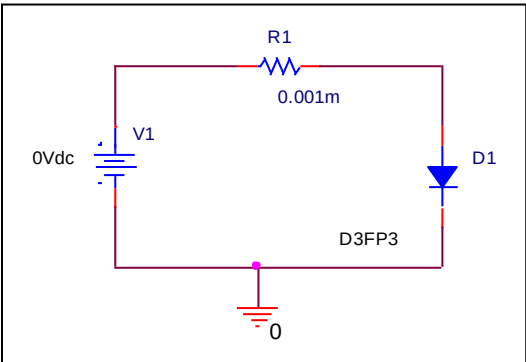
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

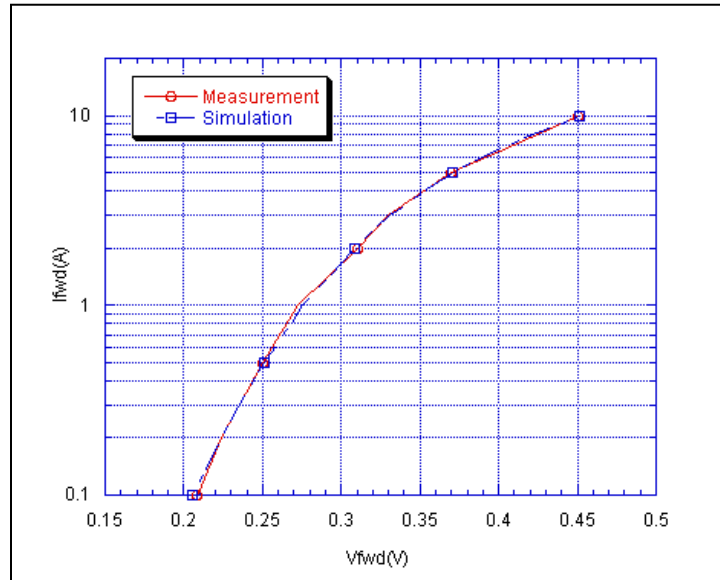


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

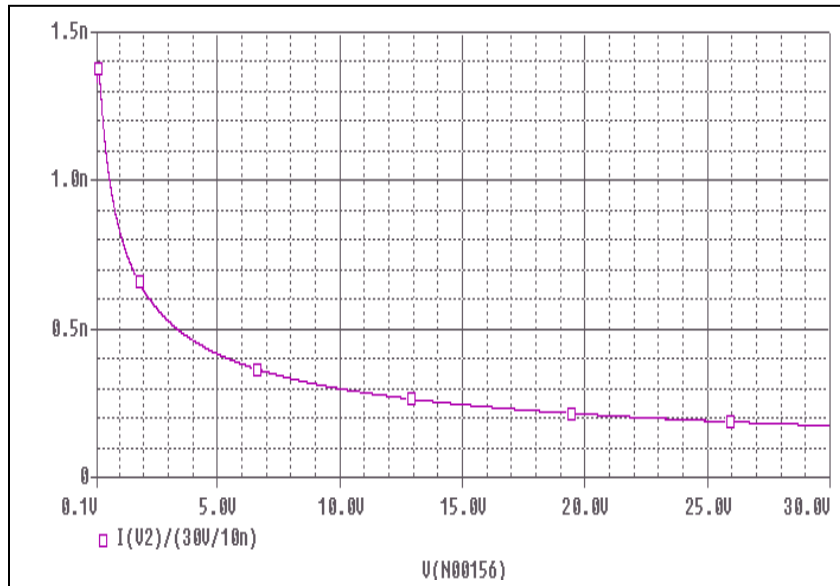


Simulation Result

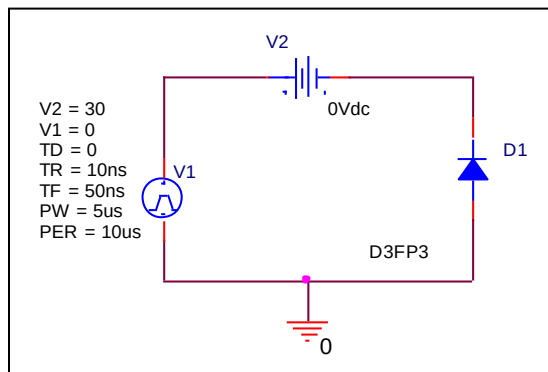
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.1	0.208	0.205	-1.44
0.2	0.223	0.224	0.45
0.5	0.250	0.251	0.40
1	0.273	0.275	0.73
2	0.310	0.309	-0.32
5	0.370	0.371	0.27
10	0.450	0.451	0.22

Junction Capacitance Characteristic

Circuit Simulation Result

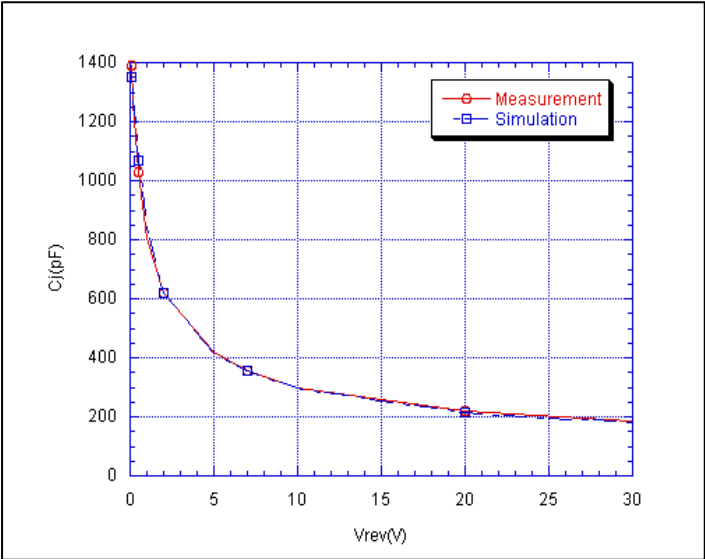


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

$V_{rev}(V)$	$C_j(pF)$ Measurement	$C_j(pF)$ Simulation	%Error
0.1	1390.00	1353.00	-2.66
0.2	1270.00	1300.00	2.36
0.5	1030.00	1068.00	3.69
1	805.00	832.00	3.35
2	620.00	622.00	0.32
5	420.00	417.00	-0.71
10	300.00	299.00	-0.33
20	220.00	215.00	-2.27
30	180.00	176.00	-2.22