

Device Modeling Report

COMPONENTS: DIODE/ SCHOTTKY / STANDARD

PART NUMBER: 6CWQ06FN

MANUFACTURER: International Rectifier

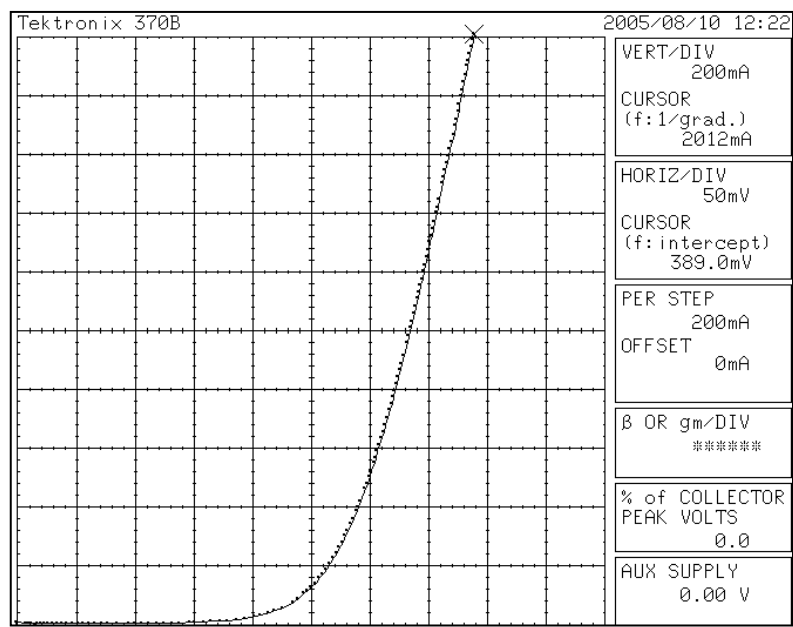


Bee Technologies Inc.

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

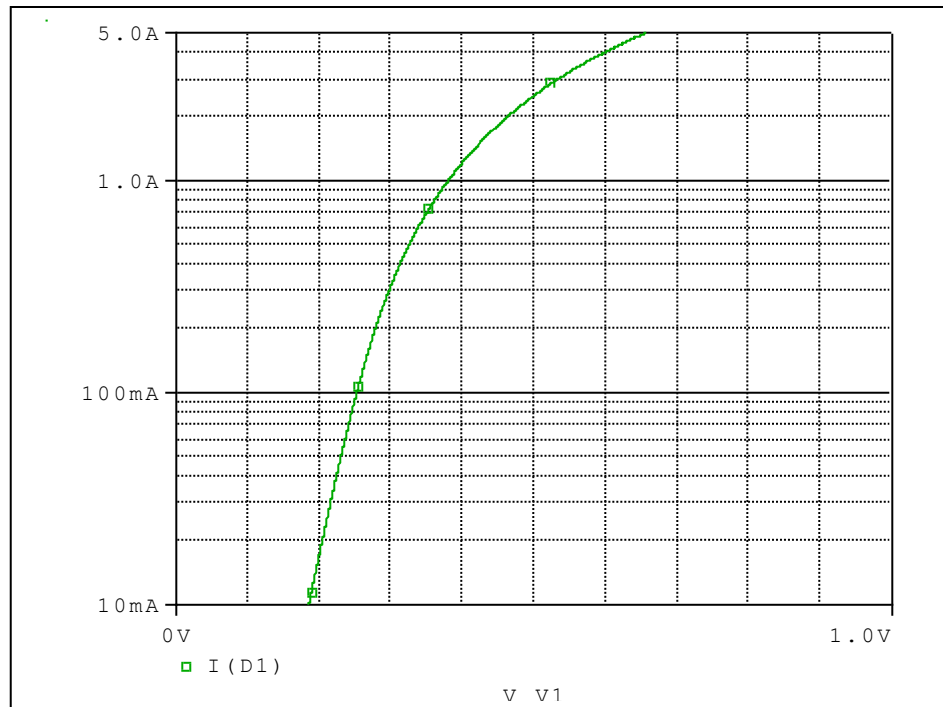
Forward Current Characteristic

Reference

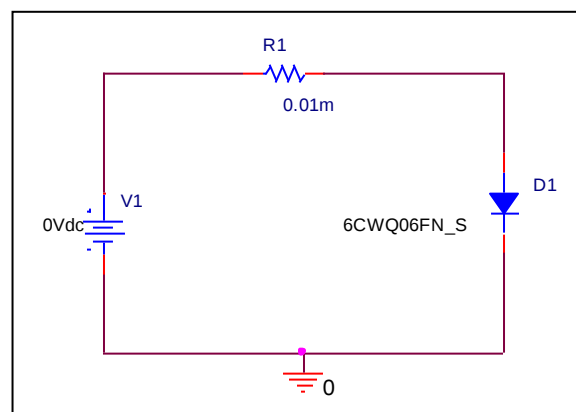


Forward Current Characteristic

Circuit Simulation Result

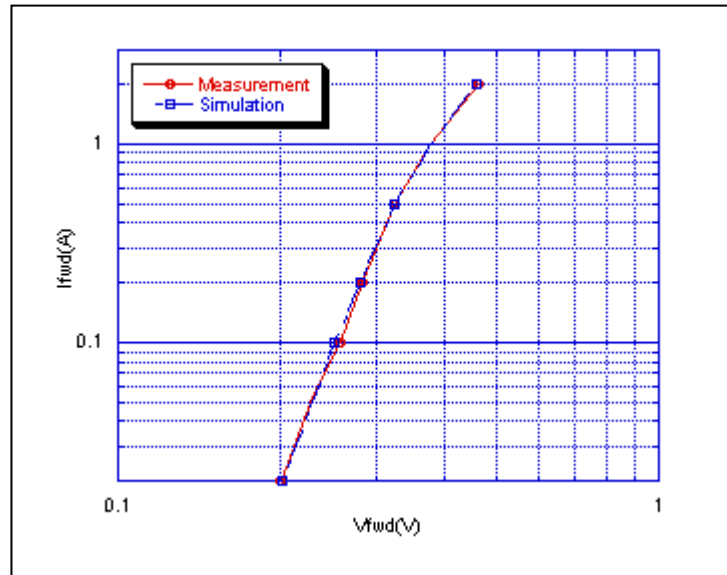


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

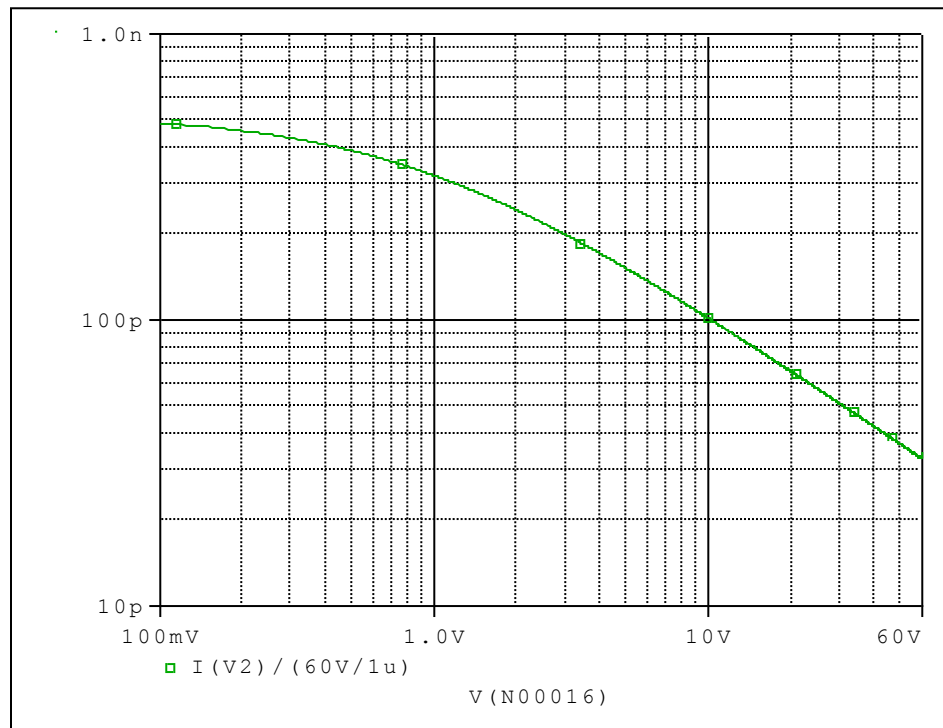


Simulation Result

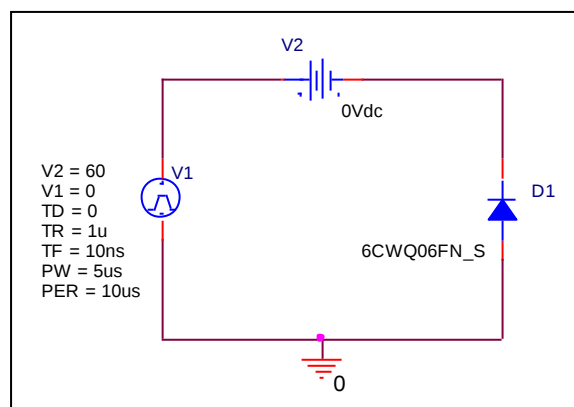
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
0.02	0.200	0.202	0.99
0.05	0.226	0.228	0.88
0.1	0.257	0.252	-1.98
0.2	0.283	0.280	-1.07
0.5	0.325	0.324	-0.31
1	0.377	0.379	0.53
2	0.463	0.462	-0.22

Junction Capacitance Characteristic

Circuit Simulation Result

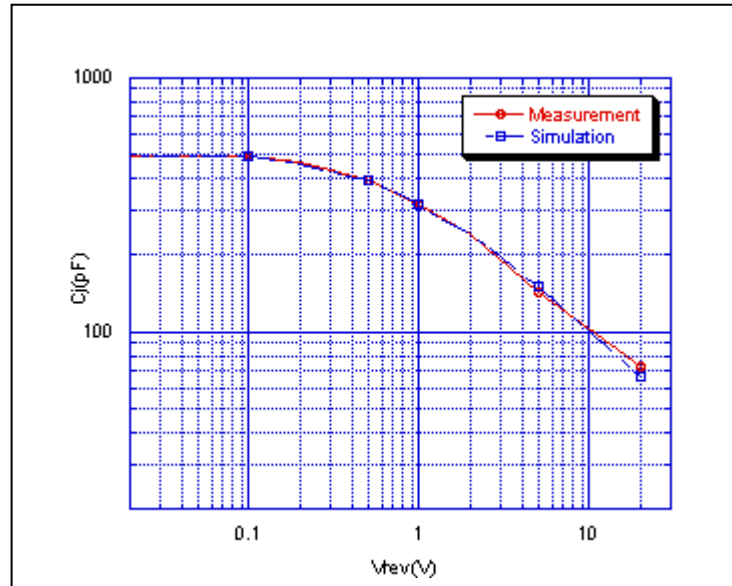


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
0	496.555	496.555	0.00
0.1	490.500	488.033	-0.51
0.2	460.900	459.226	-0.36
0.5	390.820	391.110	0.07
1	315.600	319.186	1.12
2	241.777	241.667	-0.05
5	143.300	145.600	1.58
10	102.304	100.637	-1.66
0	496.555	496.555	0.00