

Device Modeling Report

COMPONENTS:

DIODE/ SCHOOTTKY RECTIFIER / STANDARD

PART NUMBER: KSQ60A06E

MANUFACTURER: NIEC

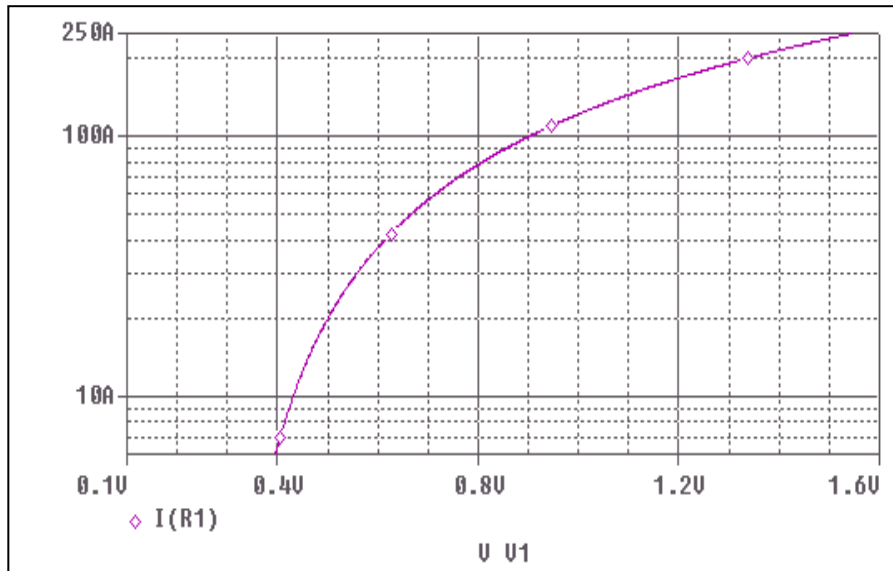


Bee Technologies Inc.

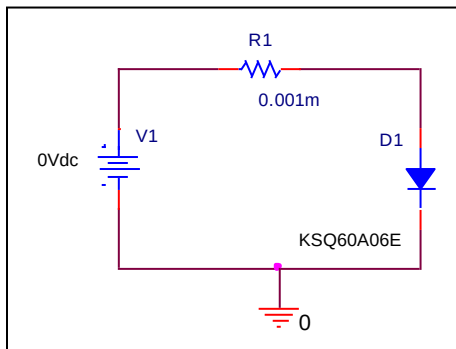
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Forward Current Characteristic

Circuit Simulation Result

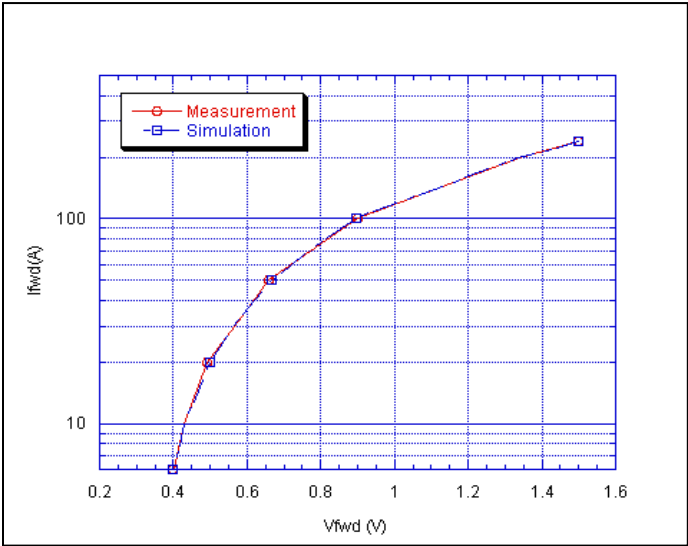


Evaluation Circuit



Comparison Graph

Circuit Simulation Result

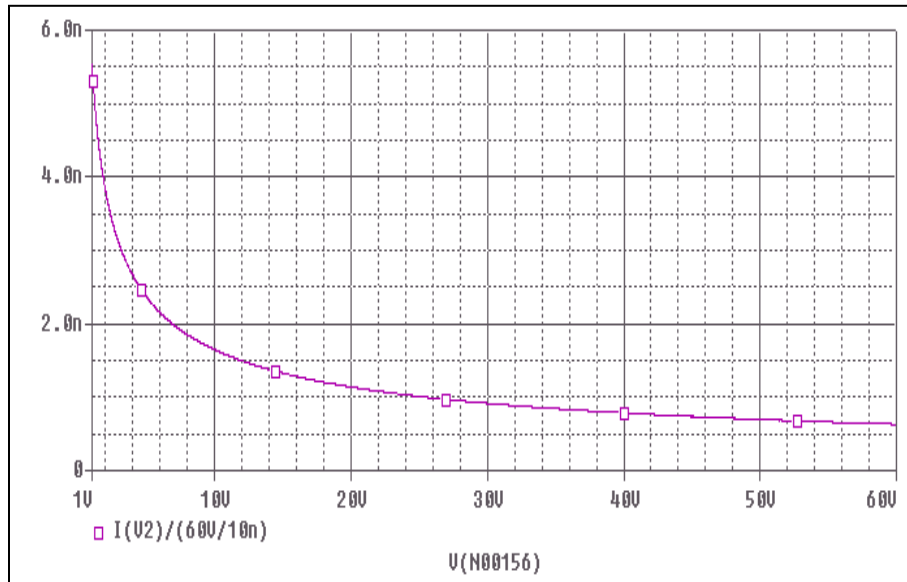


Simulation Result

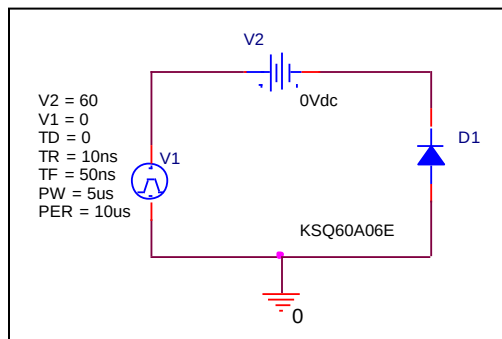
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
6	0.398	0.400	0.50
10	0.430	0.431	0.23
20	0.497	0.500	0.60
50	0.660	0.665	0.76
100	0.900	0.898	-0.22
200	1.340	1.337	-0.22
240	1.489	1.500	0.74

Junction Capacitance Characteristic

Circuit Simulation Result

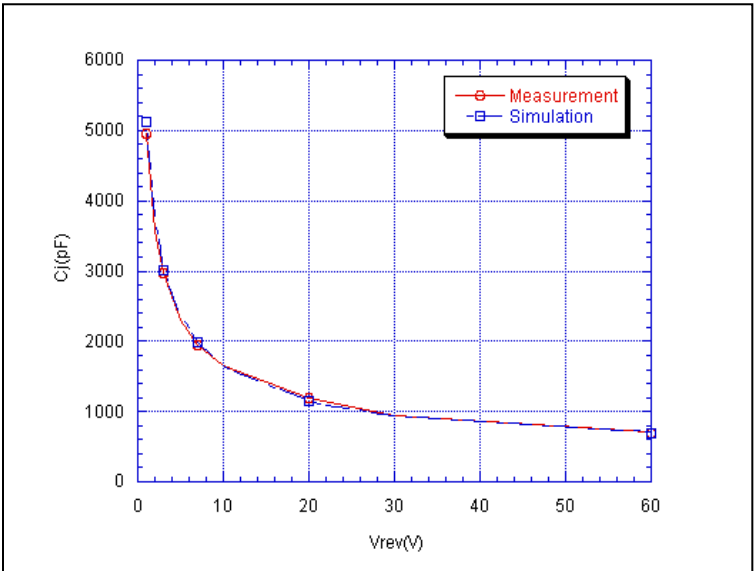


Evaluation Circuit



Comparison Graph

Circuit Simulation Result



Simulation Result

Vrev(V)	Cj(pF) Measurement	Cj(pF) Simulation	%Error
1	4950.00	5116.00	3.35
2	3570.00	3690.00	3.36
5	2295.00	2355.00	2.61
10	1650.00	1646.00	-0.24
20	1190.00	1157.00	-2.77
60	700.00	684.00	-2.29