

# Device Modeling Report

COMPONENTS:  
DIODE/ SCHOOTKY RECTIFIER / STANDARD  
PART NUMBER: HSU226  
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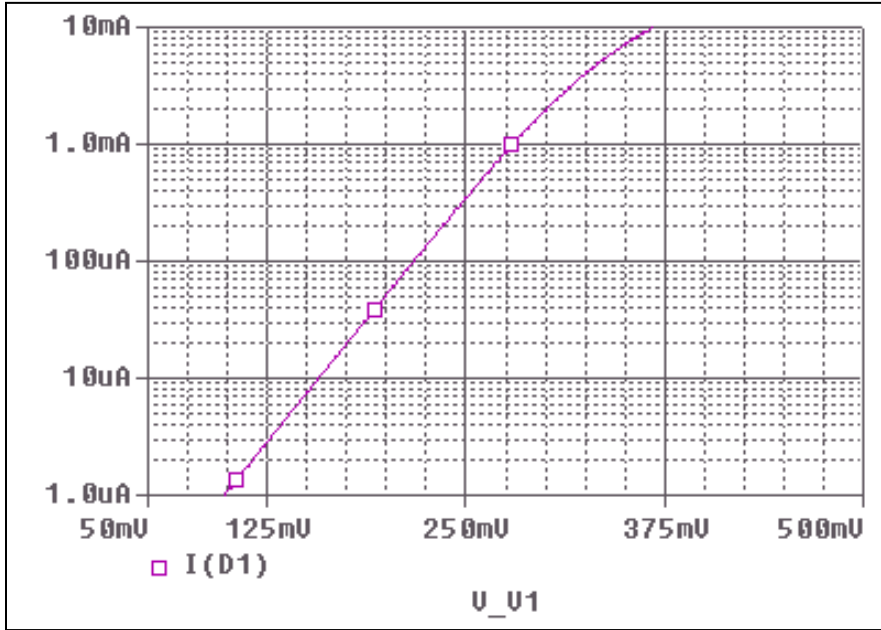


**Bee Technologies Inc.**

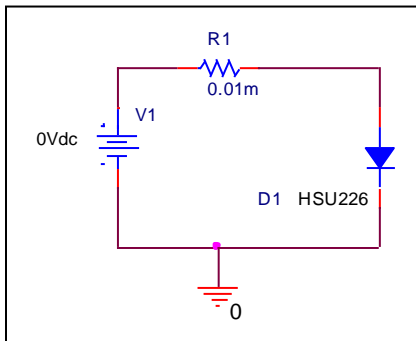
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

# Forward Current Characteristic

## Circuit Simulation Result

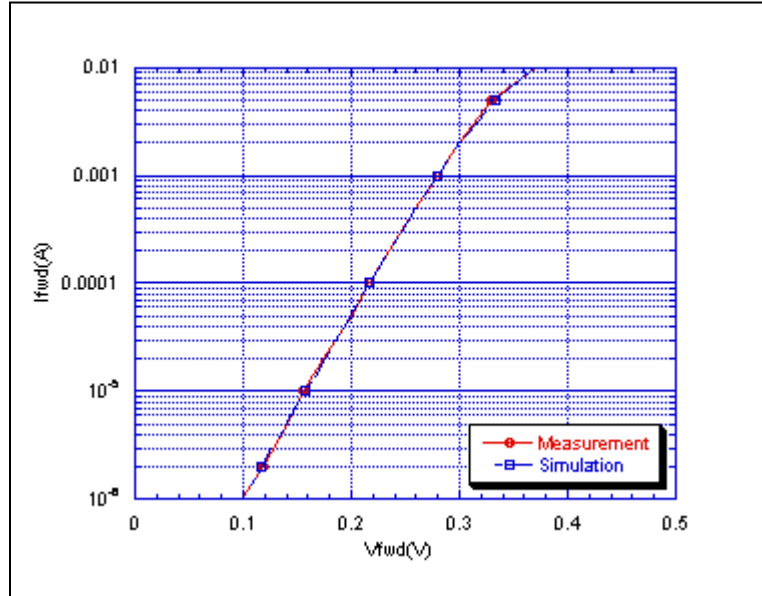


## Evaluation Circuit



# Comparison Graph

## Circuit Simulation Result

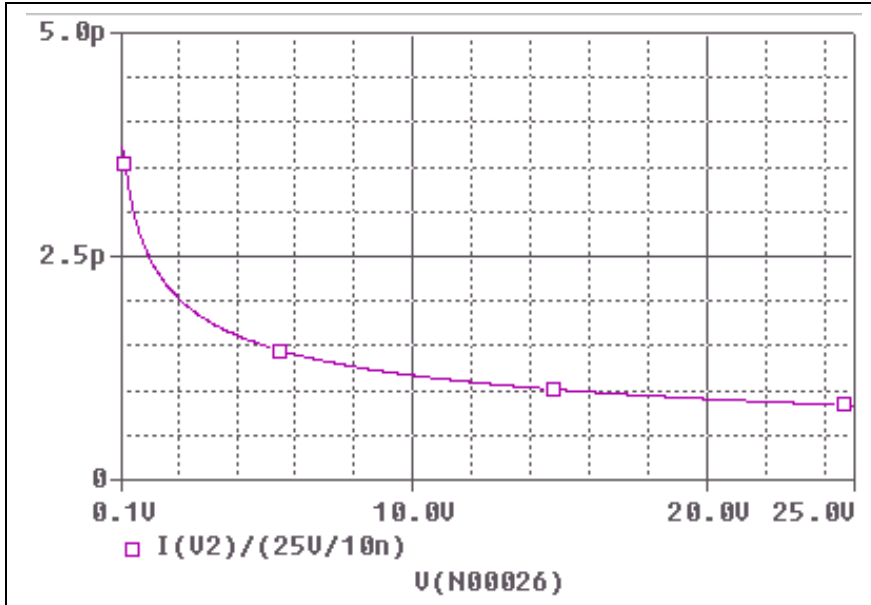


## Simulation Result

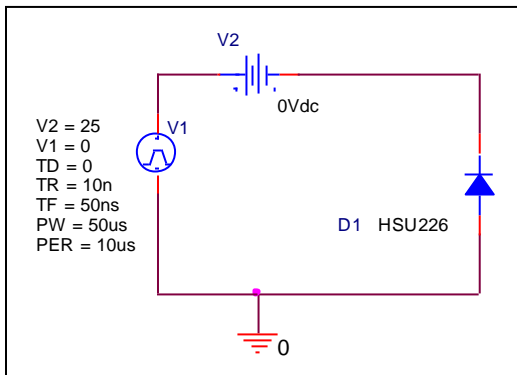
Ifwd(A)	Vfwd(V) Measurement	Vfwd(V) Simulation	%Error
1.00E-06	0.099	0.098	-0.91
1.00E-05	0.155	0.157	1.42
0.0001	0.216	0.217	0.46
0.0002	0.235	0.235	0.09
0.0005	0.260	0.260	-0.04
0.001	0.280	0.279	-0.21
0.002	0.300	0.300	0.00
0.005	0.330	0.334	1.18
0.01	0.370	0.368	-0.57

# Junction Capacitance Characteristic

## Circuit Simulation Result

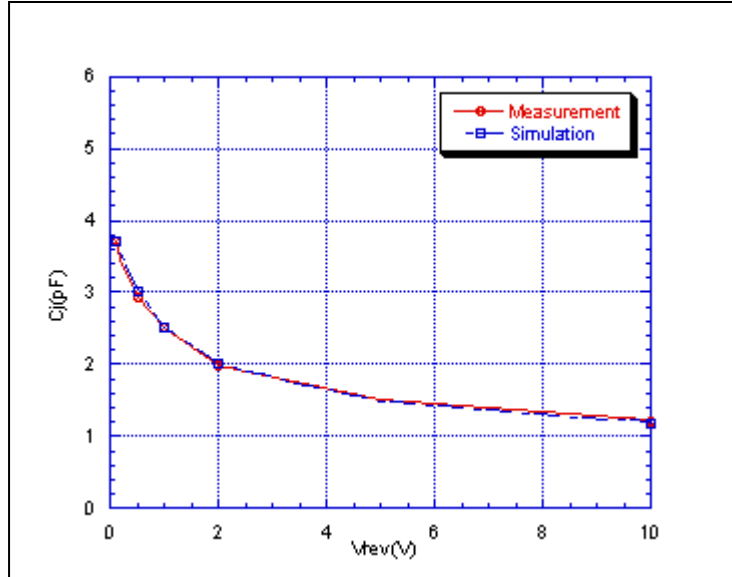


## Evaluation Circuit



# Comparison Graph

## Circuit Simulation Result



## Simulation Result

$V_{rev}$ (V)	$C_j$ (pF) Measurement	$C_j$ (pF) Simulation	%Error
0.1	3.698	3.700	0.05
0.2	3.450	3.530	2.32
0.5	2.930	3.000	2.39
1	2.500	2.510	0.40
2	1.990	2.000	0.50
5	1.500	1.490	-0.67
10	1.200	1.170	-2.50