

# Device Modeling Report

COMPONENTS:VARISTOR  
PART NUMBER:VR60B(A)  
MANUFACTURER:SHINDENGEN

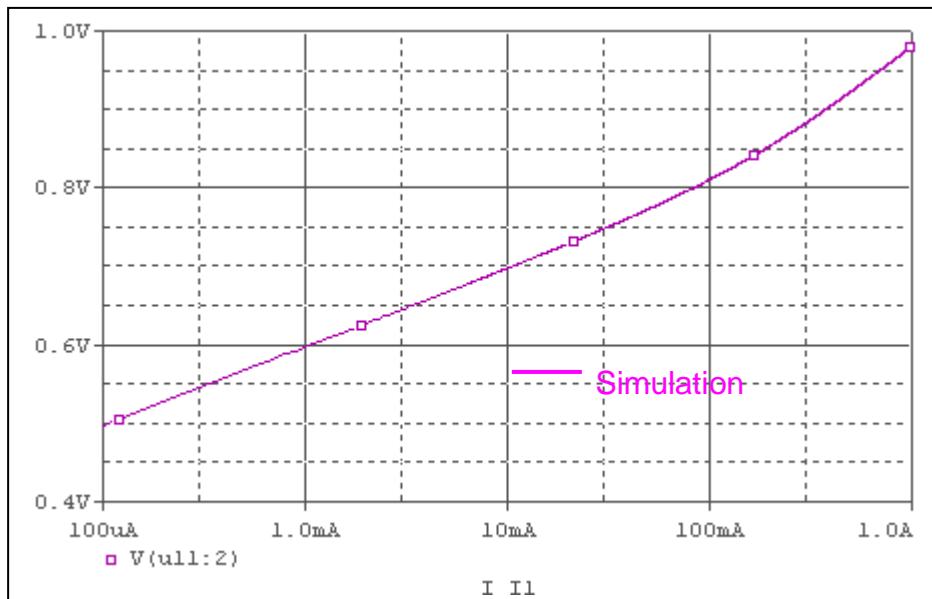


**Bee Technologies Inc.**

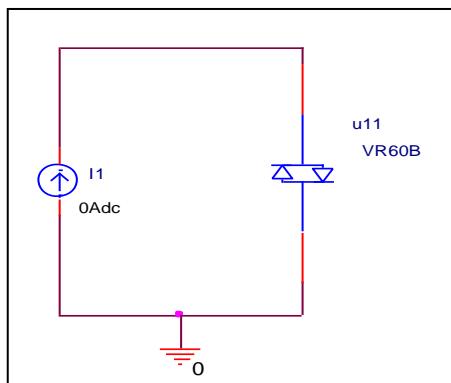
Pspice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
ISR	Recombination Current Saturation Value
TT	Transit Time

## Forward Current Characteristic

Circuit simulation result



Evaluation Circuit

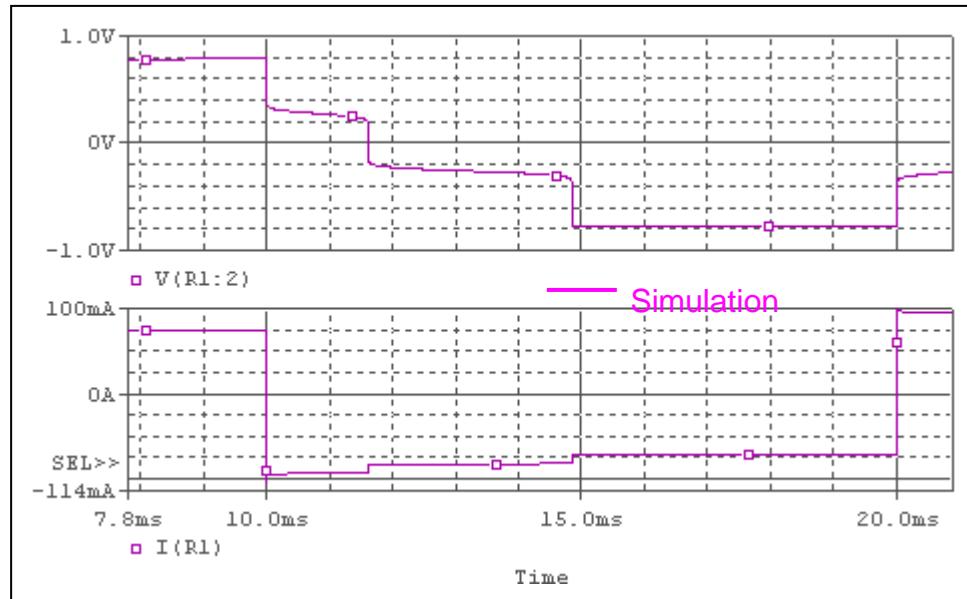


## Comparison Measurement and Simulation

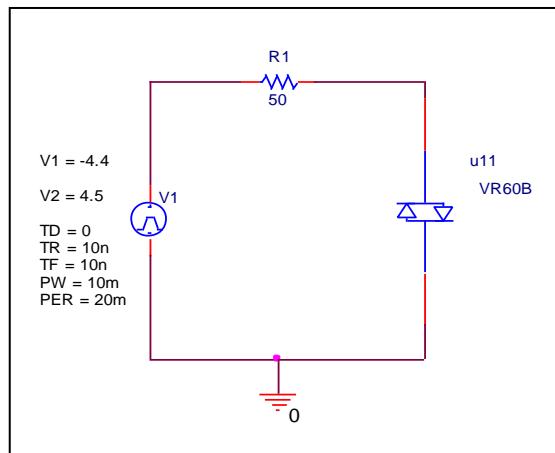
Ifwd(A)	Vfwd(V) : Measurement	Vfwd(V) : Simulation	% Error
1m	0.600	0.597	0.500
2m	0.625	0.627	0.320
5m	0.665	0.667	0.301
10m	0.700	0.697	0.429
20	0.730	0.728	0.274
50m	0.775	0.773	0.258
100m	0.810	0.810	0.000

## Reverse Recovery Characteristic

### Circuit simulation result



### Evaluation Circuit



### Comparison Measurement and Simulation

	TT	Measurement(sec)	Simulation(sec)	% Error
VR60B1	3.49E-6	1.72u	1.7065u	0.7849
VR60B2	2.8E-3	1.50m	1.4813m	1.2467
VR60B3	10.7E-3	4.47m	4.4095m	1.3535

## Measurement

