

# Device Modeling Report

COMPONENTS:VARISTOR  
PART NUMBER:VR61B(A)  
MANUFACTURER:SHINDENGEN

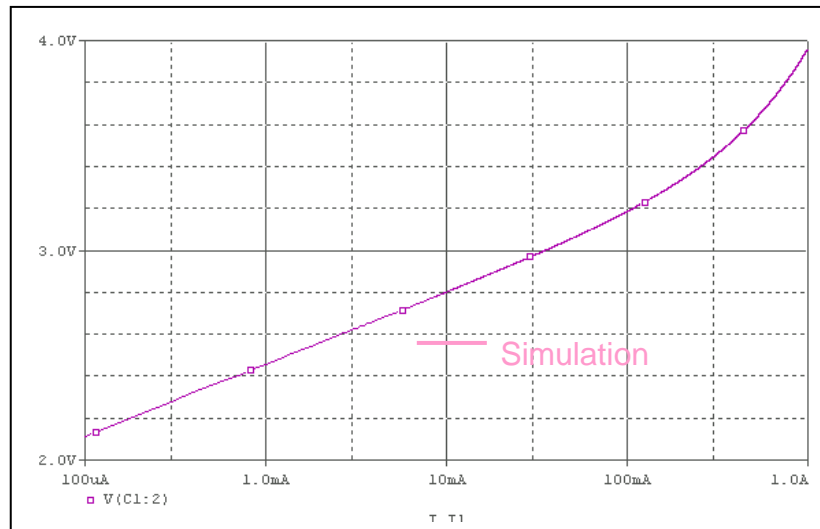


**Bee Technologies Inc.**

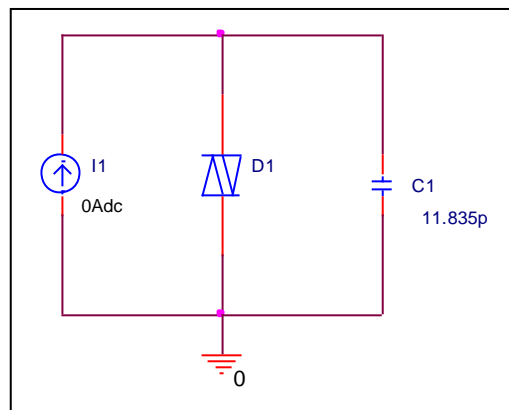
Pspice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
ISR	Recombination Current Saturation Value
TT	Transit Time

## Forward Current Characteristic

### Circuit simulation result



### Evaluation Circuit

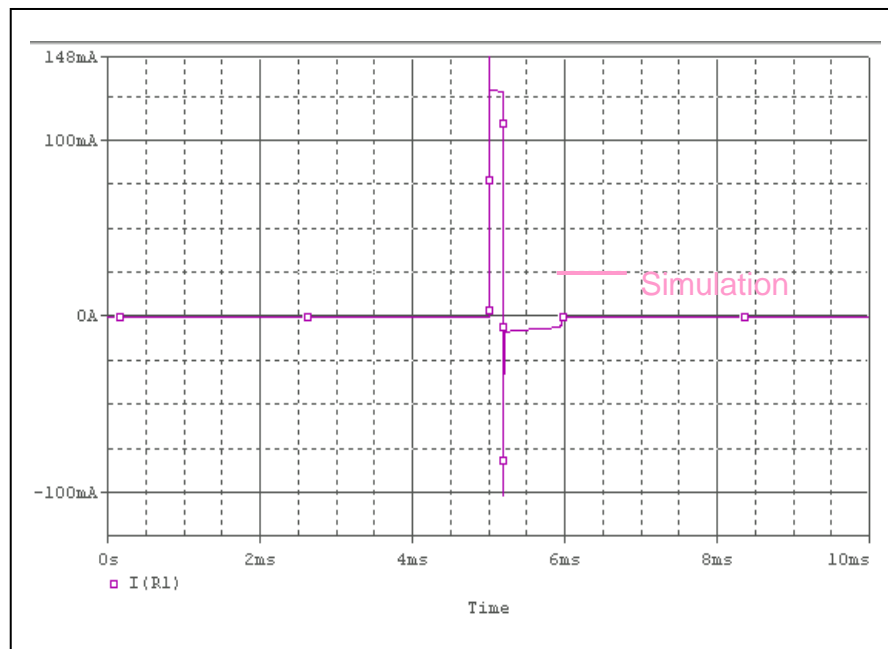
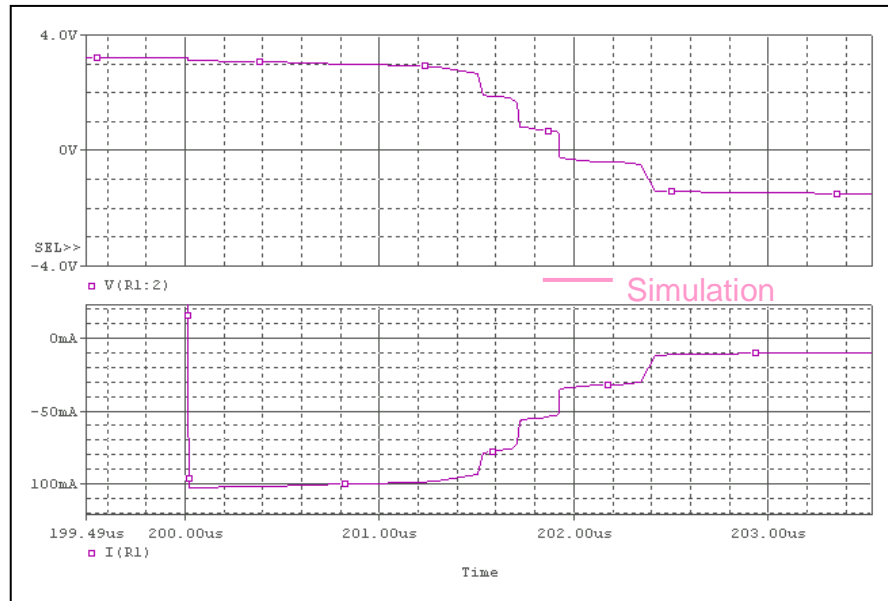


### Simulation result

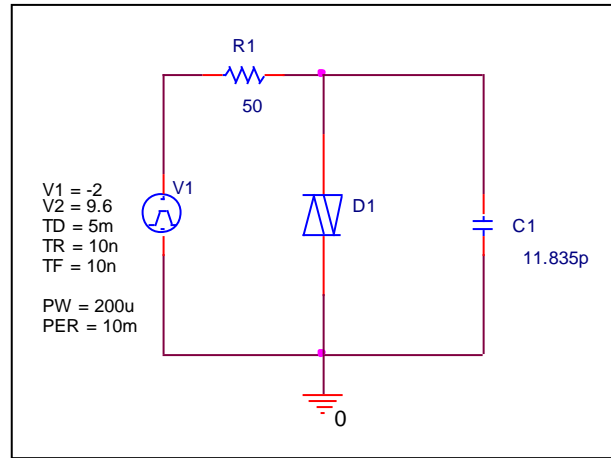
Ifwd(A)	VFwd(V):Simulation	VFwd(V):Measurement	%Error
0.1m	2.11	2.14	1.421
1m	2.456	2.42	-1.465
10m	2.081	2.08	-0.048
100m	3.185	3.2	0.47
1000m	3.962	3.96	-0.05

# Reverse Recovery Characteristic

## Circuit simulation result

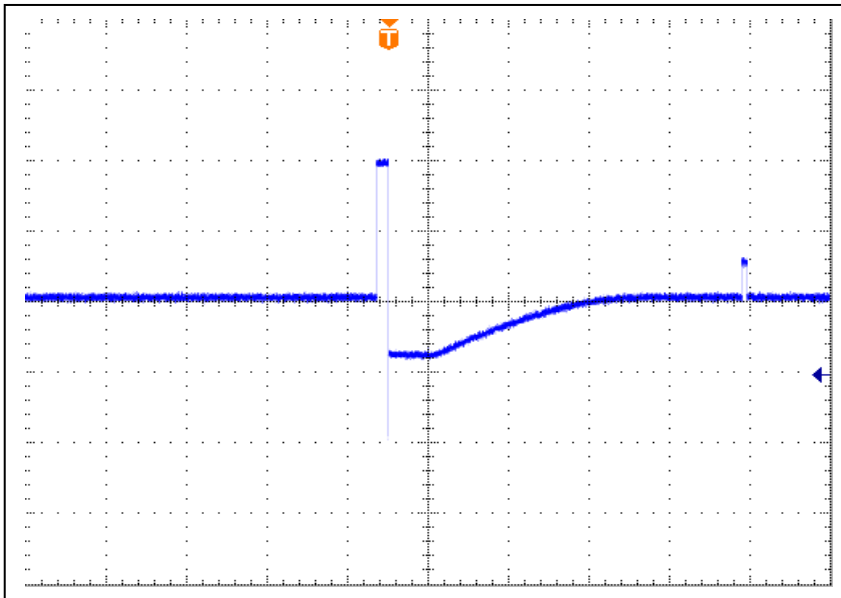
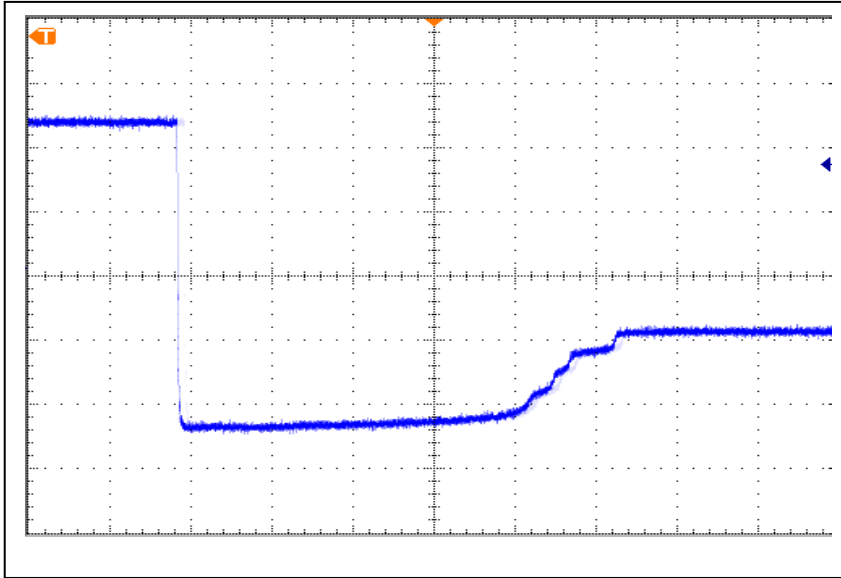


## Evaluation Circuit



Simulation result

Measurement



	TT	Simulation(sec)	Measurement(sec)	%Error
VRBA1	1.803u	1.4759u	1.47u	-0.399
VRBA2	2u	1.6841u	1.67u	-0.837
VRBA3	2.15u	1.878u	1.84u	-2.023
VRBA4	2.35u	2.329u	2.34u	0.472
VRBA5	0.000348	762u	760u	-0.262