

Device Modeling Report

COMPONENTS:VARISTOR
PART NUMBER:VR60BP(A)
MANUFACTURER:SHINDENGEN

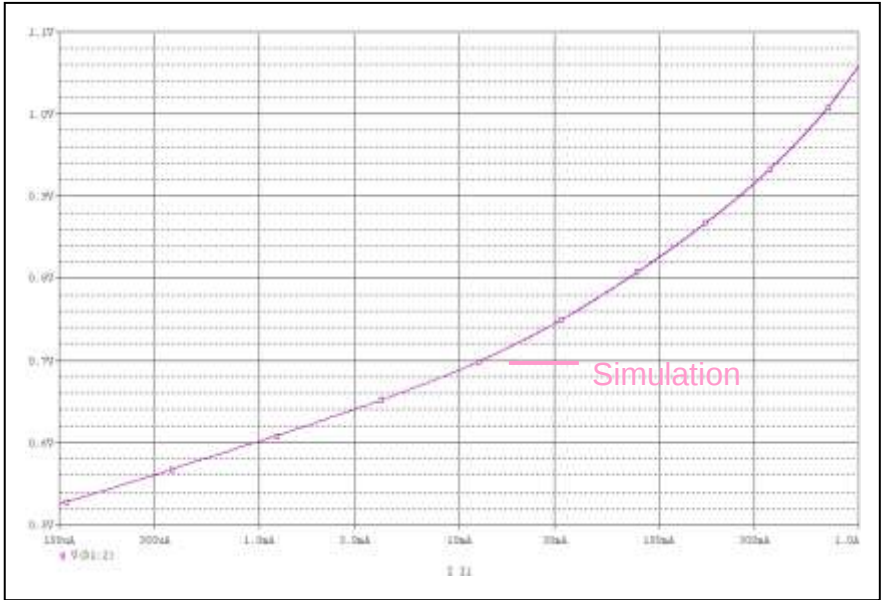


Bee Technologies Inc.

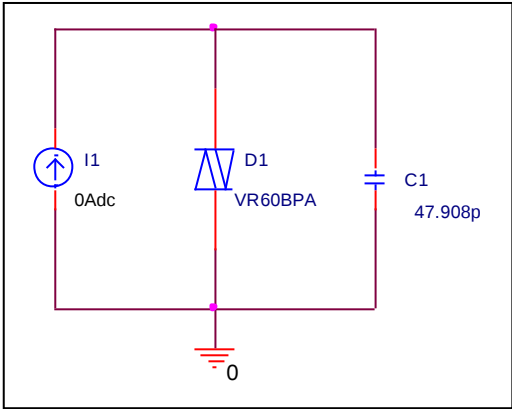
Pspice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
ISR	Recombination Current Saturation Value
TT	Transit Time

Forward Current Characteristic

Circuit simulation result



Evaluation Circuit

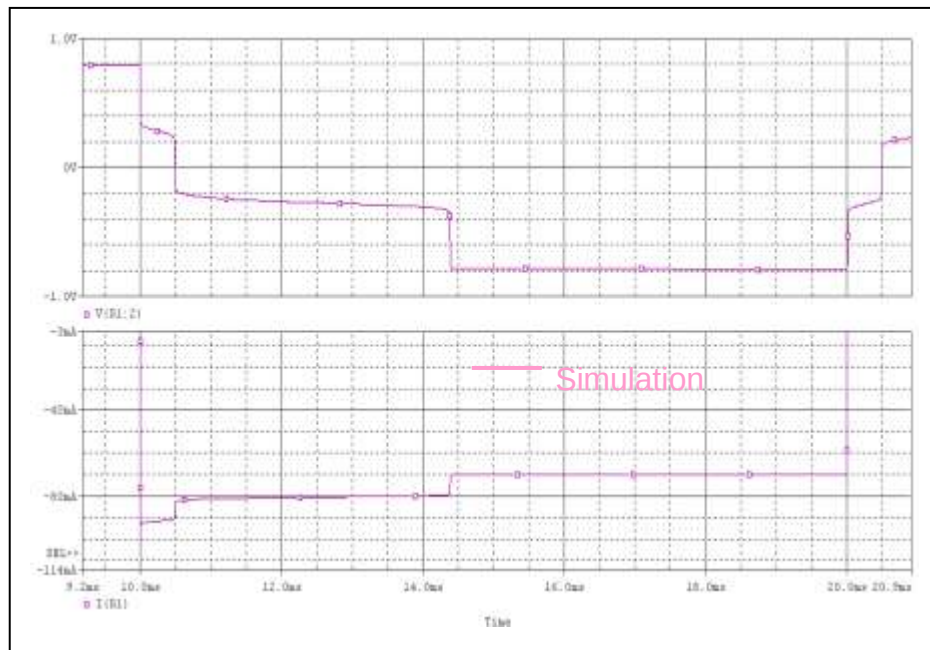


Simulation result

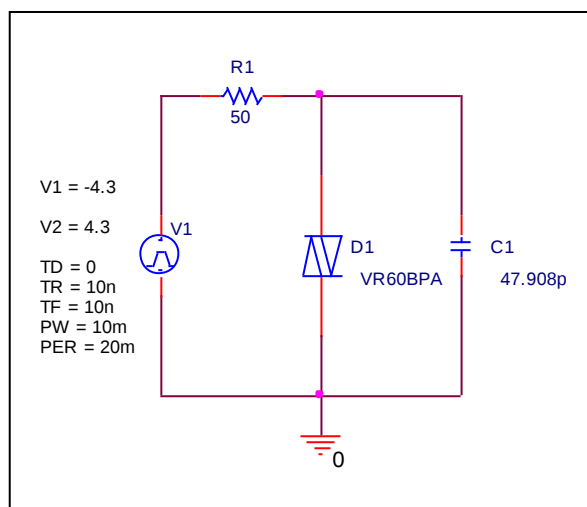
Ifwd(A)	VFwd(V):Simulation	VFwd(V):Measurement	%Error
0.1m	0.524	0.525	0.19
1m	0.601	0.6	-0.166
10m	0.688	0.69	0.290
100m	0.825	0.825	0
1000m	1.059	1.06	0.094

Reverse Recovery Characteristic

Circuit simulation result

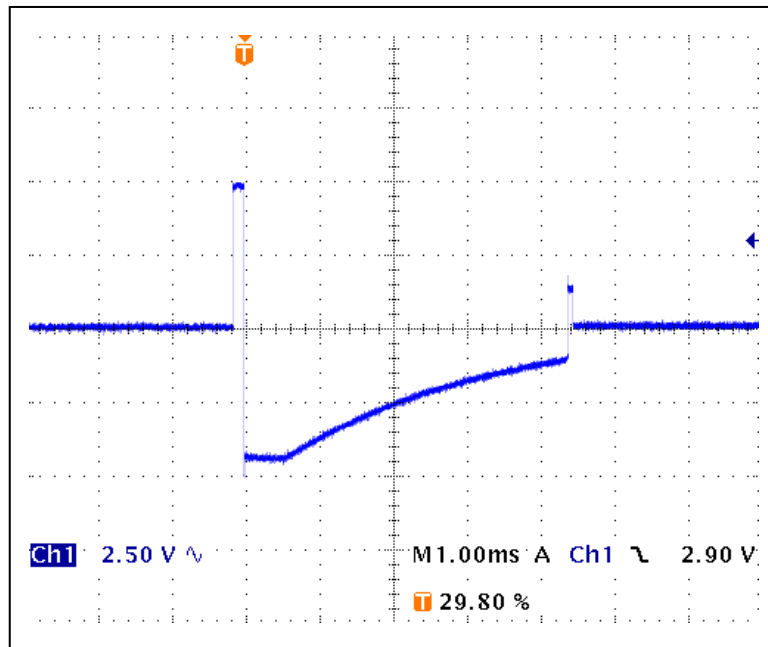
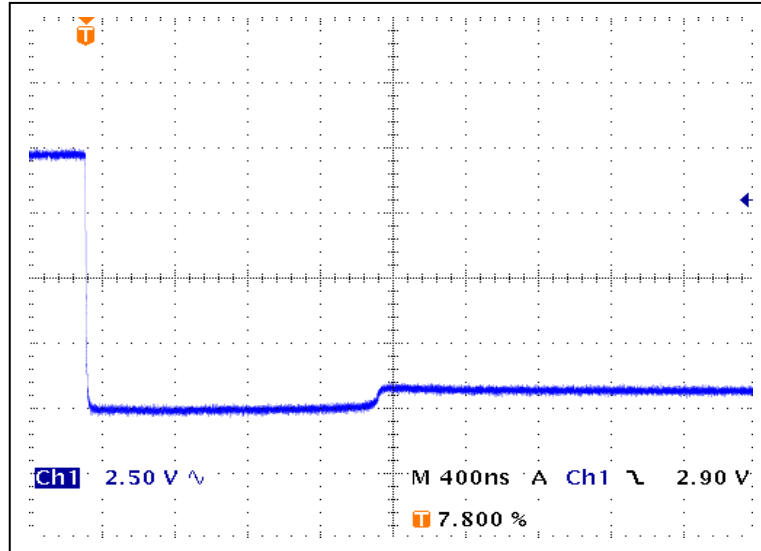


Evaluation Circuit



Simulation result

Measurement



	TT	Simulation(sec)	Measurement(sec)	%Error
VRBA1	3.1u	1.565u	1.56u	-0.319
VRBA2	865u	481u	480u	-0.207
VRBA3	9.2m	4.369m	4.36m	-0.205