Device Modeling Report

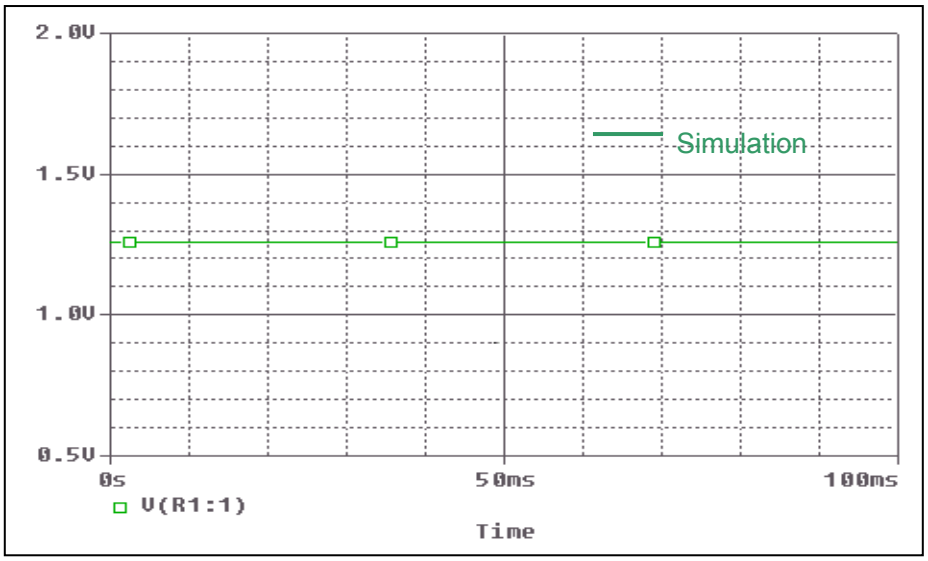
COMPONENTS: SHUNT REGULATOR
PART NUMBER: TA76432F
MANUFACTURER: TOSHIBA

Bee Technologies Inc.

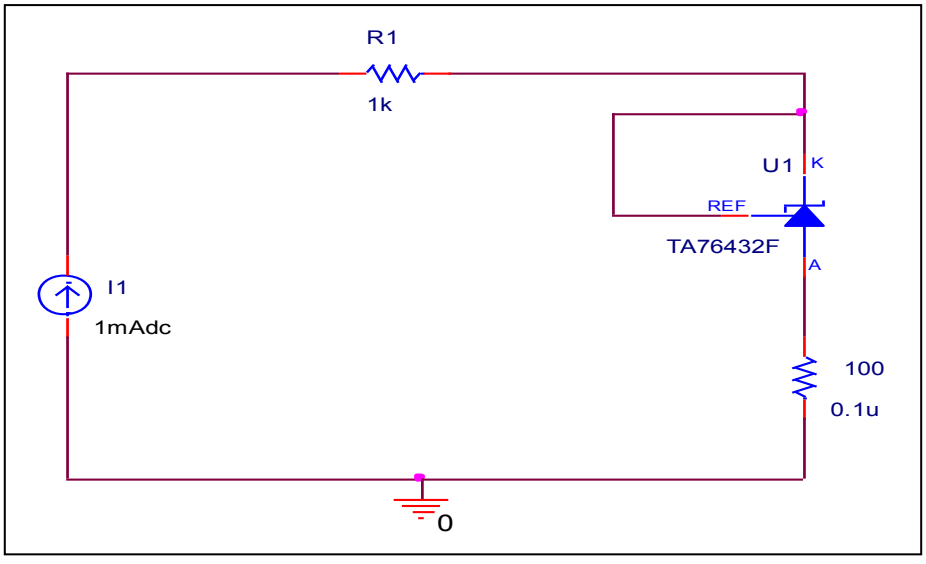
Pspice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

VREF(Reference Voltage) Characteristic

Simulation resuit



Evaluation circuit

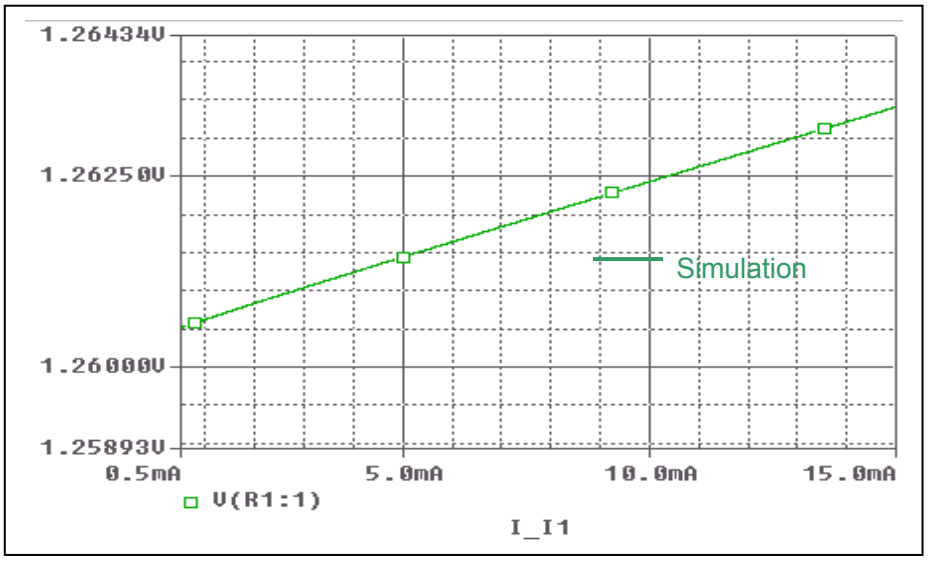


Comparison Table

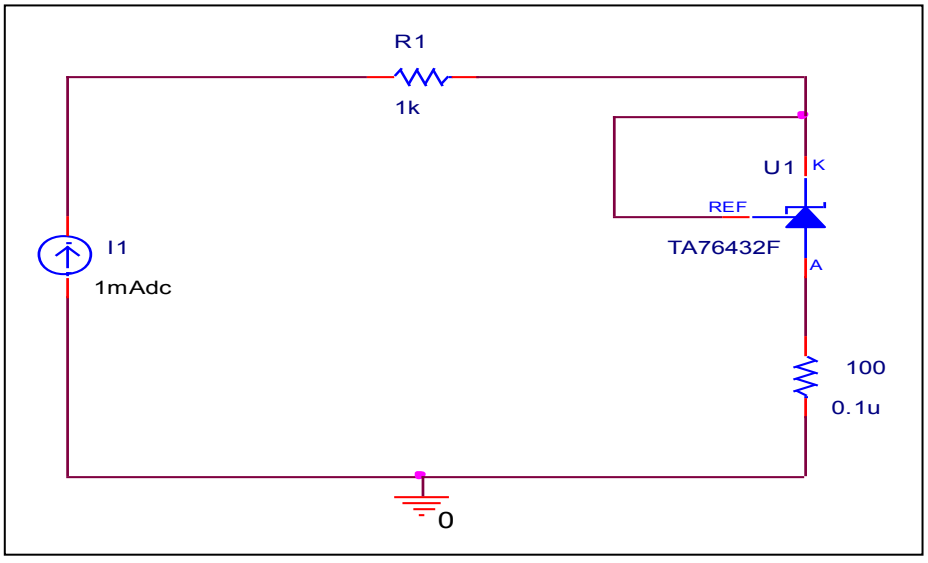
$V_{KA}=V_{REF}$	Data Sheet	Simulation	%Error
Vref(V)	1.26	1.2609	0.071

ZKA(Dynamic Impedance) Characteristic

Simulation resuit



Evaluation circuit

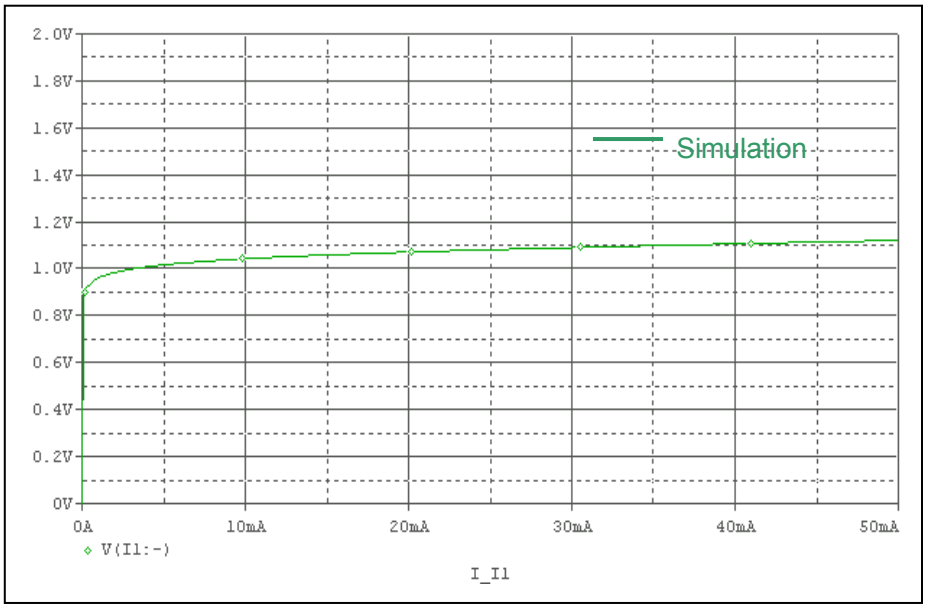


Comparison Table

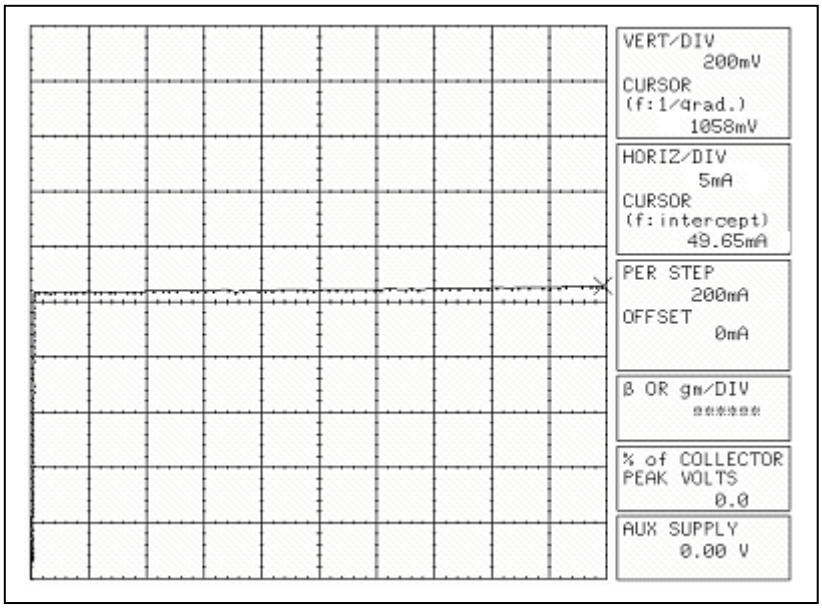
$V_{KA}=V_{REF}$,Ik=0.5mA~15mA	Data Sheet	Simulation	%Error
|ZKA| (Ω)	0.2	0.201841	0.920

Output Characteristic

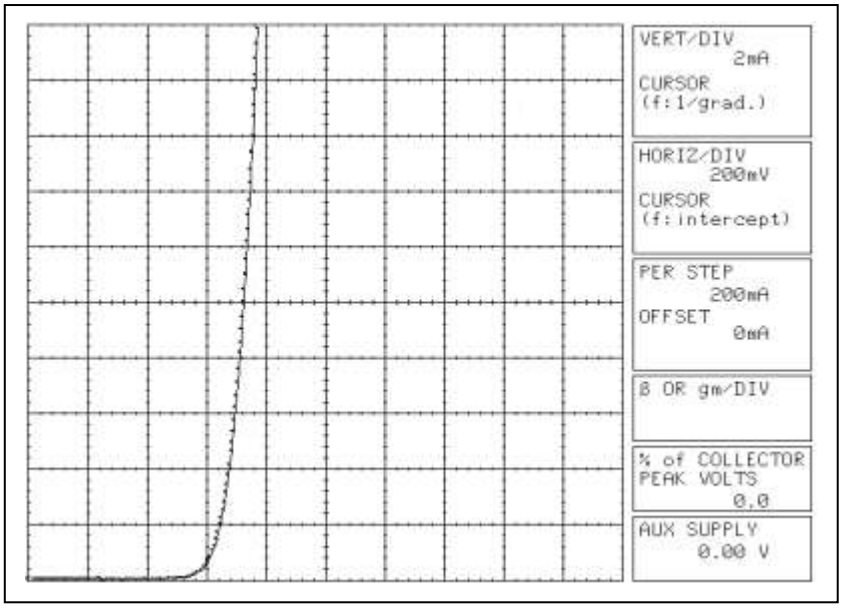
Simulation resuit



Measurement



I-V Characteristic (D2) Reference



Reverse Characteristic (Breakdown Characteristic) (D2)