Device Modeling Report

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DIODE MODEL

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

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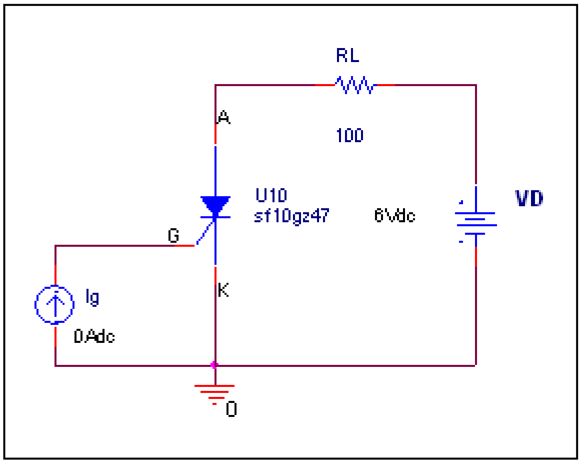
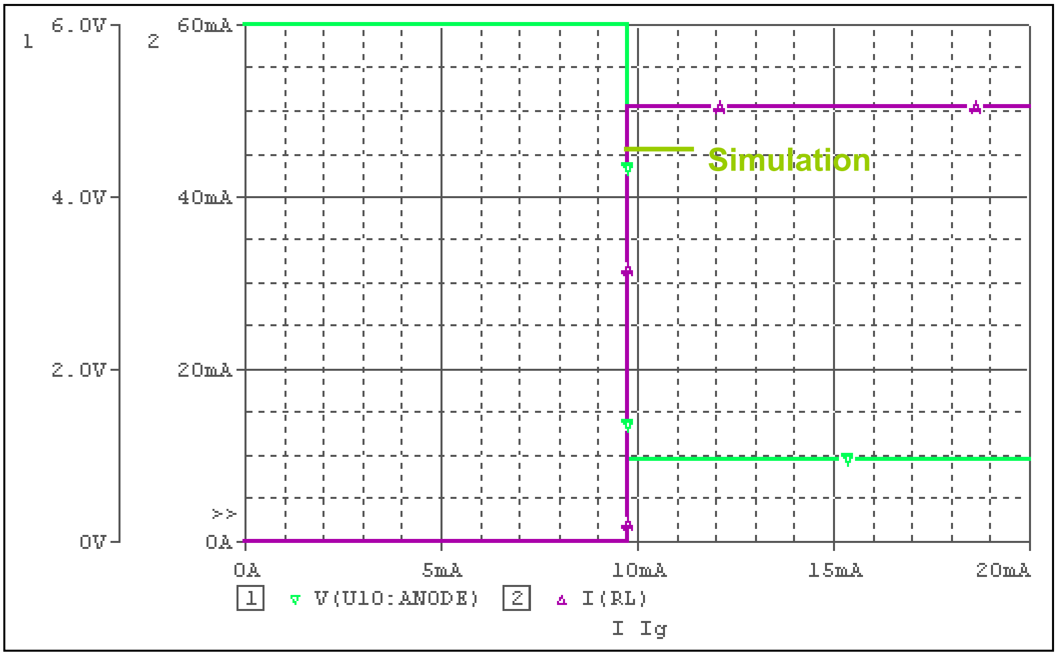
IG-VT Characteristic

Evaluation Circuit



Simulation result



Comparison Table

	Measurement	Simulation	% Error
IG_T (mA)	10(max)	9.759	-2.4100
V_{GT} (V)	1(max)	0.962476	-3.7524

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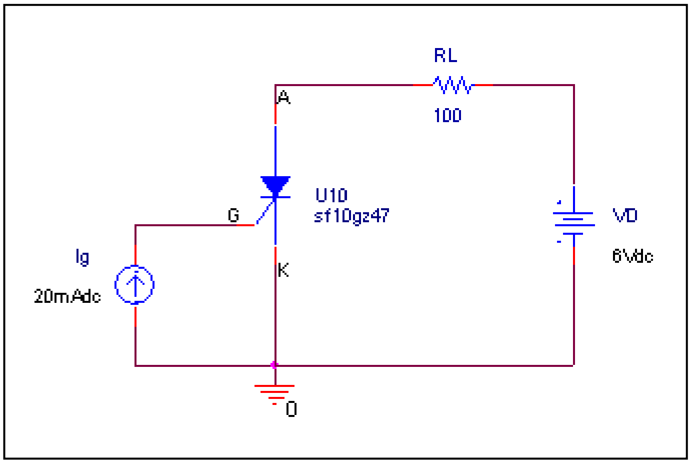
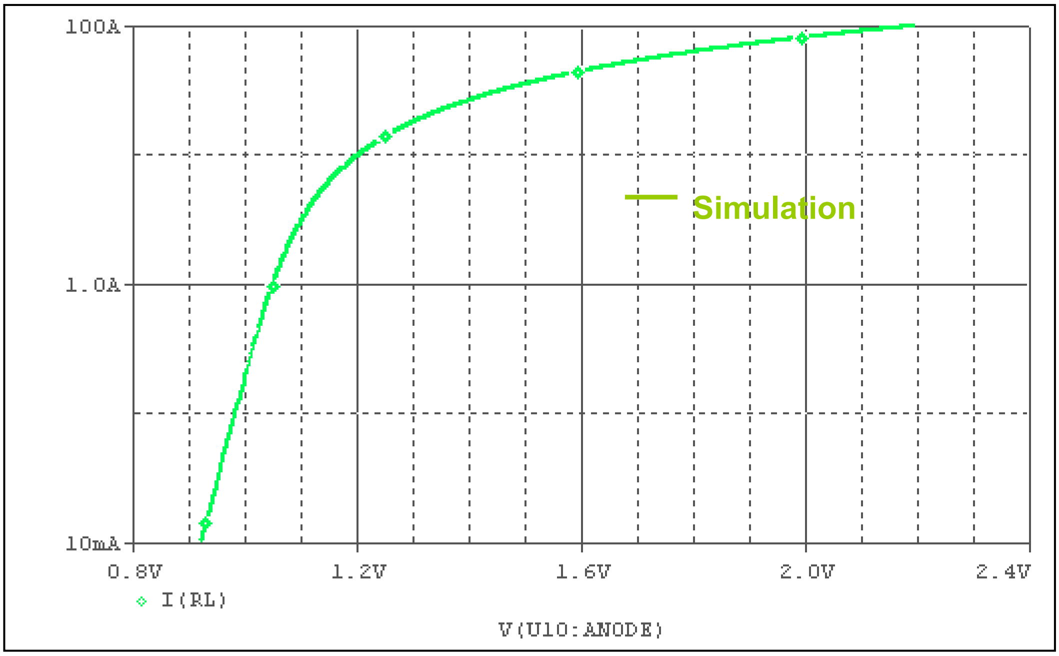
ITM-VTM Characteristic

Evaluation Circuit



Simulation result



Comparison Table

At ITM=30A	Measurement	Simulation	% Error
VTM(V)	1.5(max)	1.4375	-4.1667

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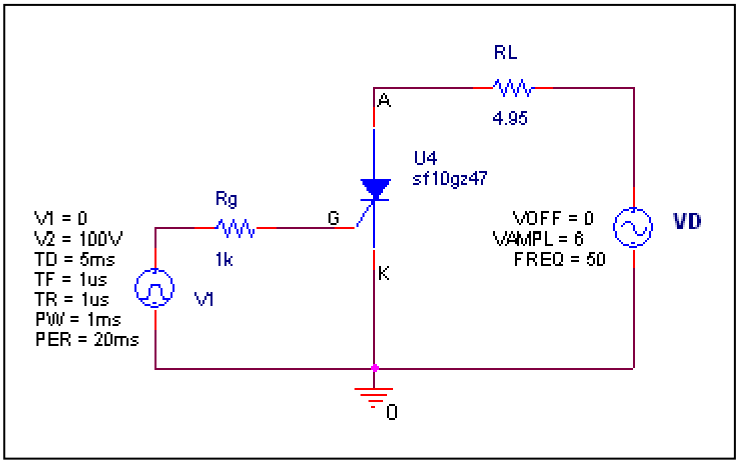
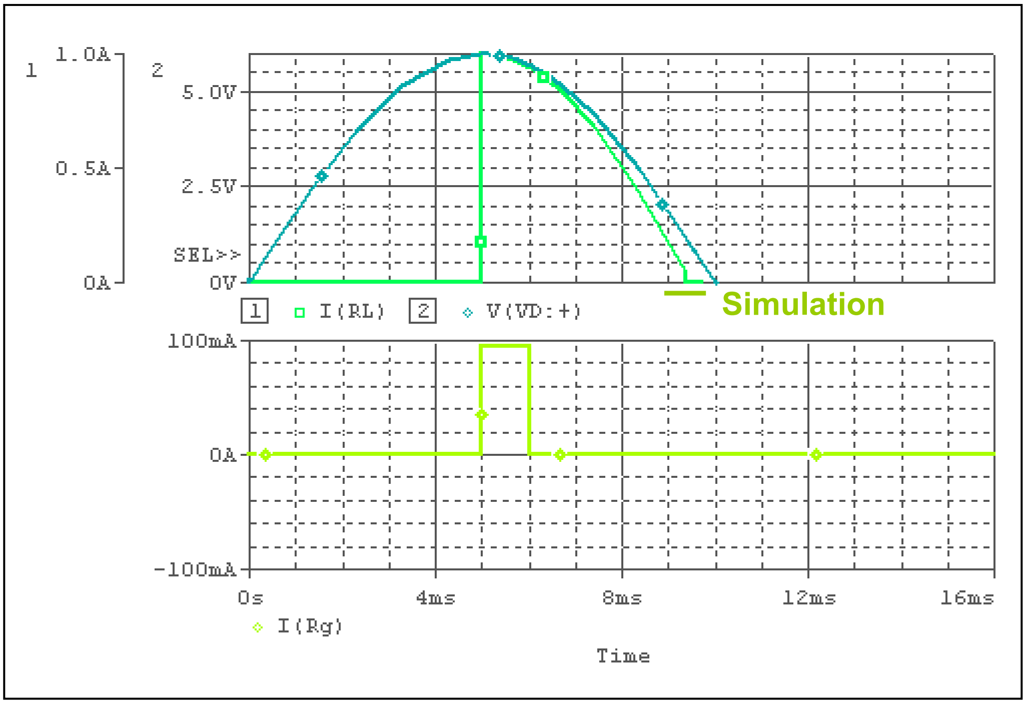
Holding Characteristic (IH)

Evaluation Circuit



Simulation result



Comparison Table

VD=6V,I_{TM}=1A	Measurement	Simulation	% Error
IH(mA)	40(max)	39.268	-1.8300

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