

Device Modeling Report

COMPONENTS: Laser Diode
PART NUMBER: SLD302V
MANUFACTURER: SONY

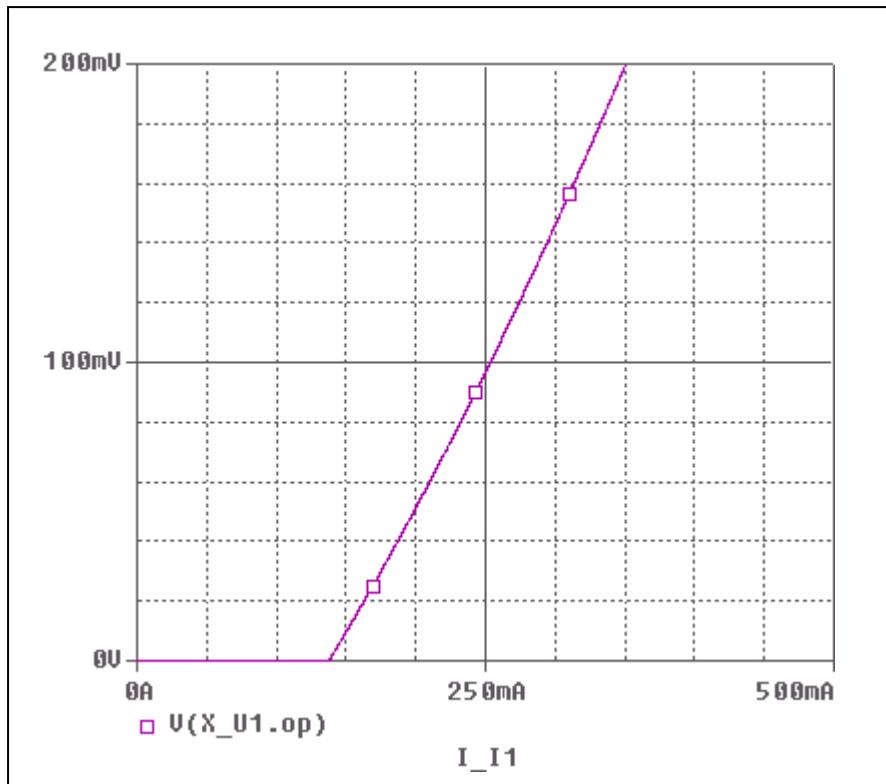


Bee Technologies Inc.

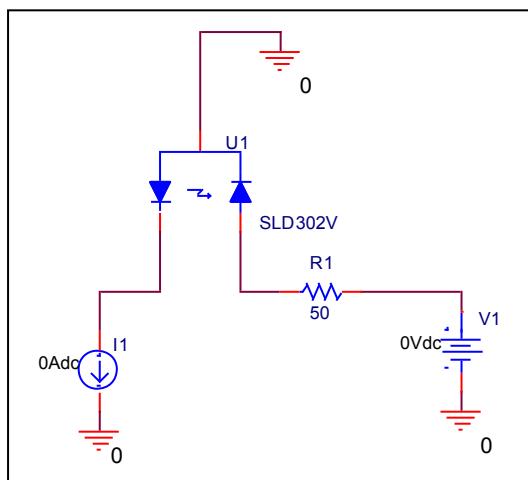
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Optical Output Power vs. Forward current characteristics

Circuit simulation result

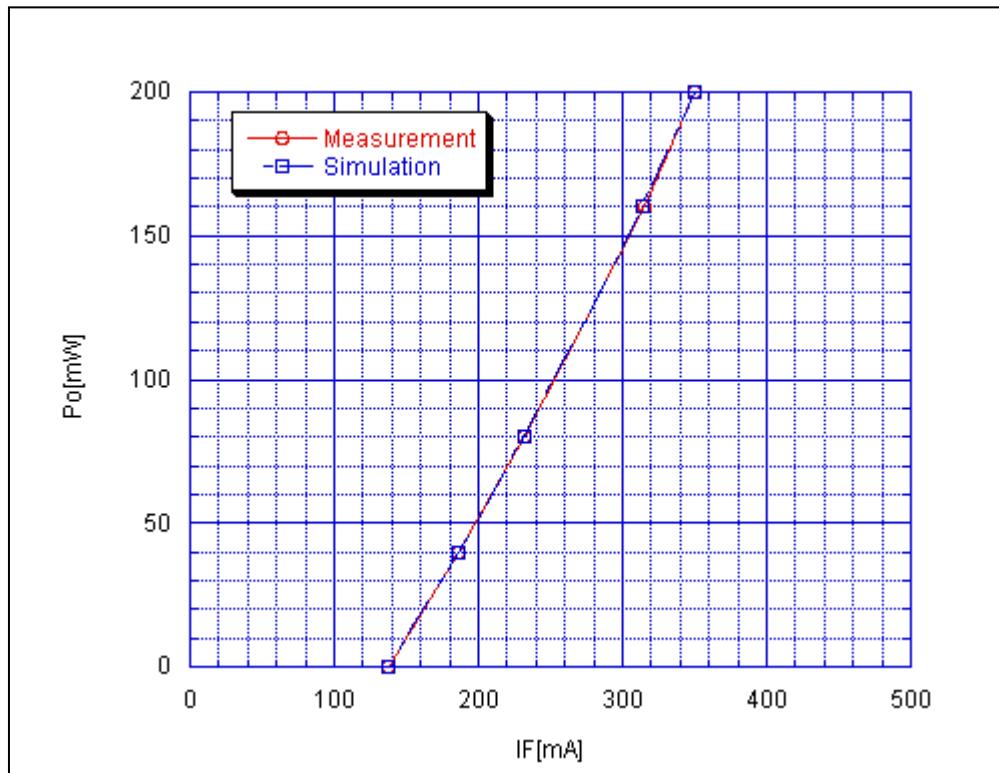


Evaluation circuit



Comparison graph

Circuit simulation result

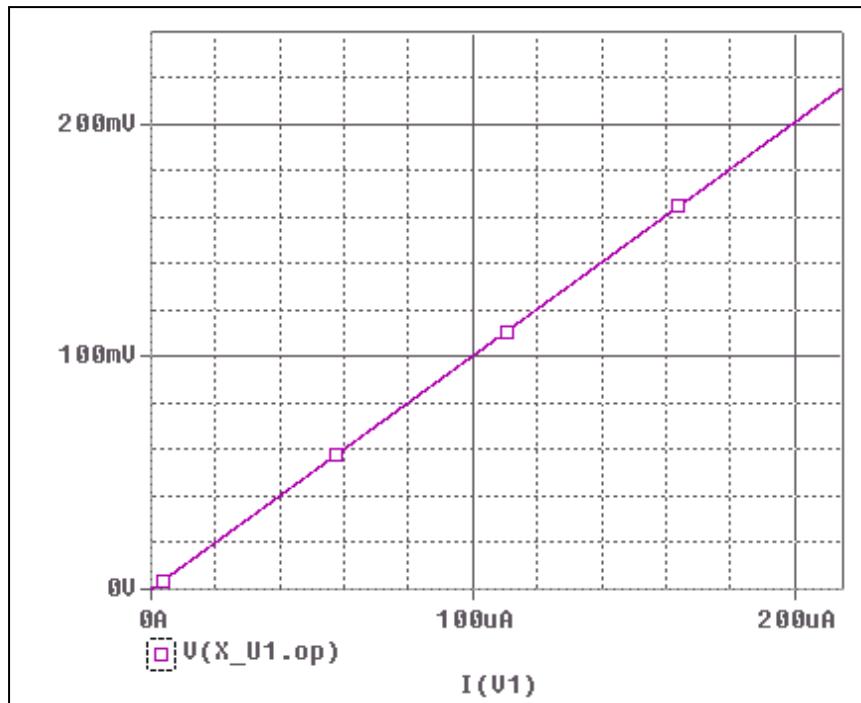


Simulation Result

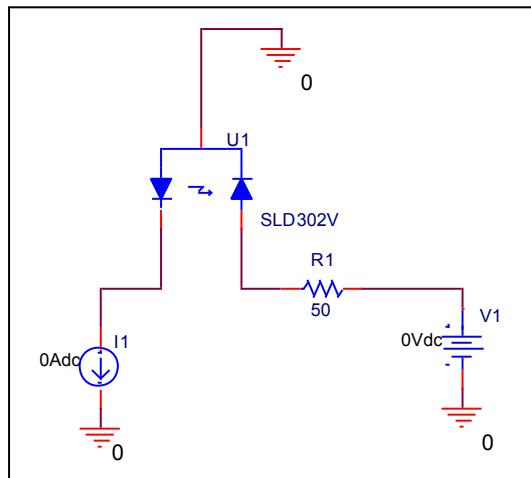
Po[mW]	IF[mA]		Error (%)
	Measurement	Simulation	
40	186	186.7	0.3763
80	232	232	0
120	274	274.1	0.0364
160	315	313.5	0.4761
200	350	350.7	0.2

Monitor Current vs. Optical Output Power characteristics

Circuit simulation result

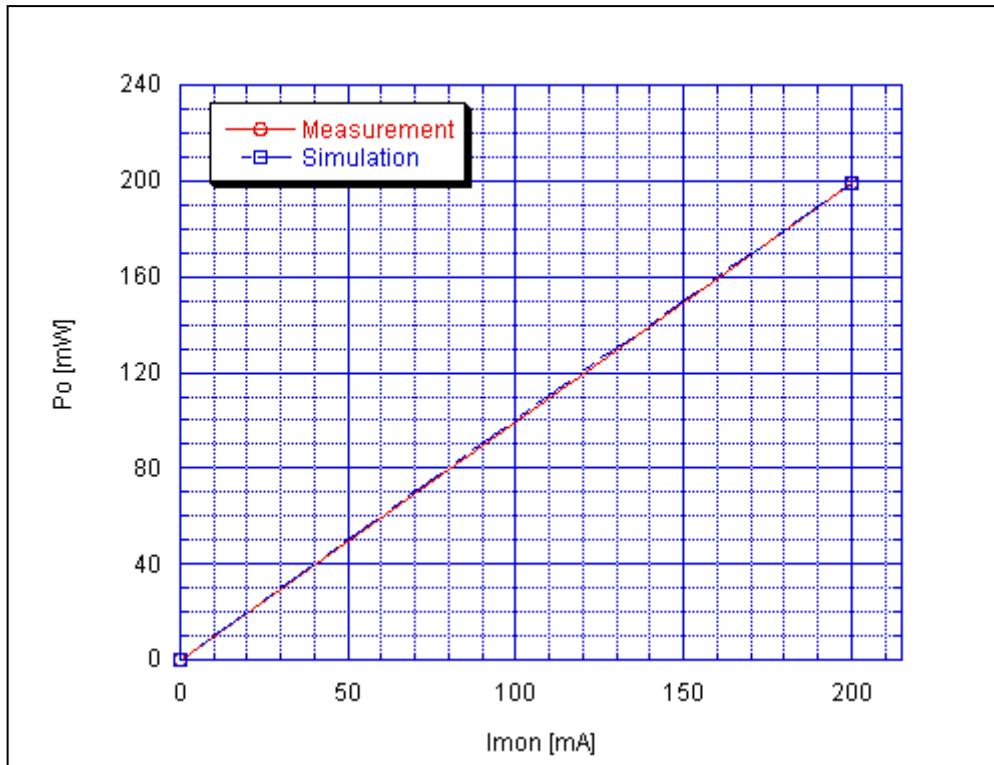


Evaluation circuit



Comparison graph

Circuit simulation result



Simulation Result

Po[mW]	Imon[mA]		Error (%)
	Measurement	Simulation	
40	39.9	39.8	0.2506
80	79.8	79.5	0.3759
120	119.6	119.4	0.1672
160	159.4	159.2	0.1254
200	199.2	199	0.1004