

Device Modeling Report

COMPONENTS: Laser Diode
PART NUMBER: DL-7140-201
MANUFACTURER: SANYO

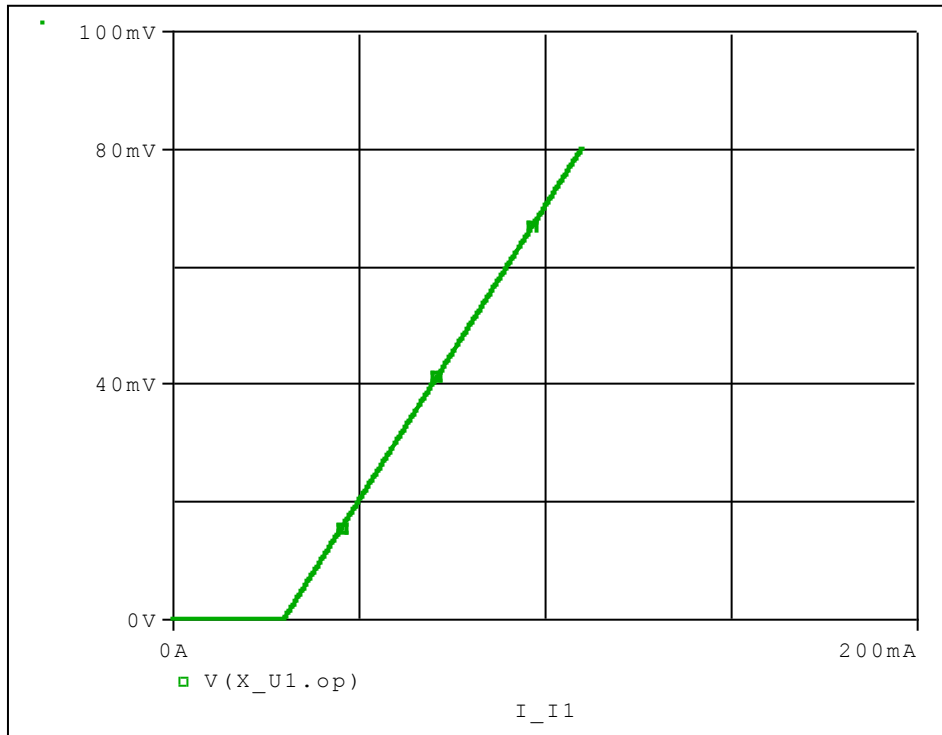


Bee Technologies Inc.

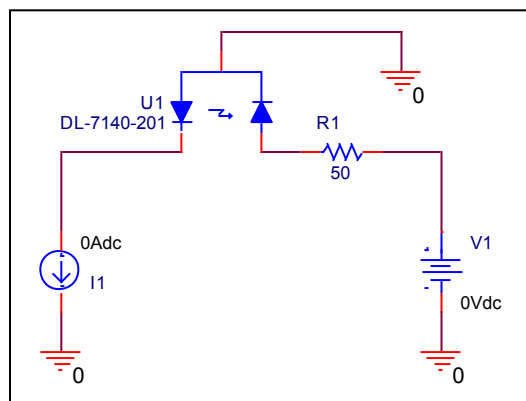
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Optical Output Power vs. Forward current characteristics

Circuit simulation result

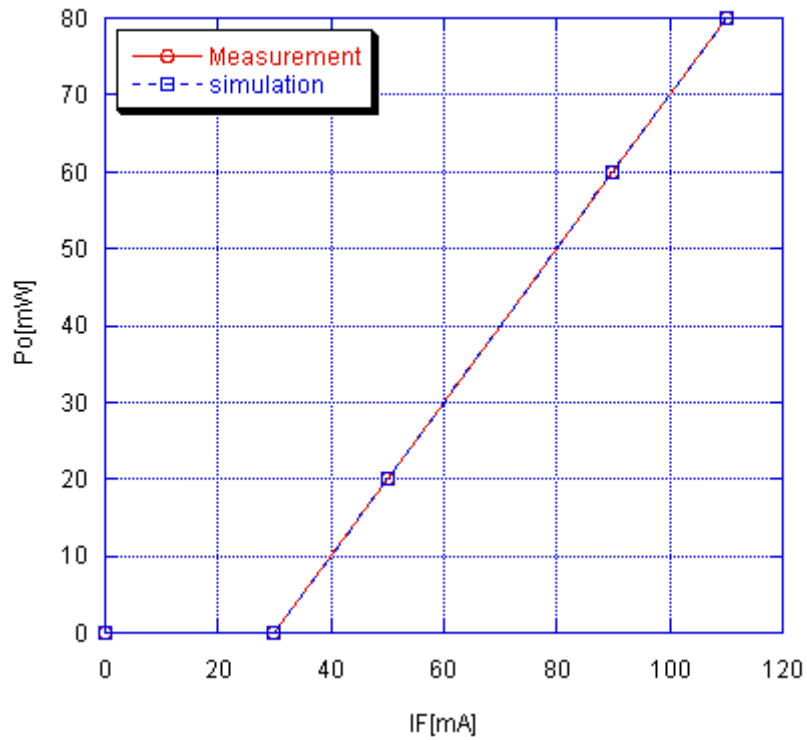


Evaluation circuit



Comparison graph

Circuit simulation result

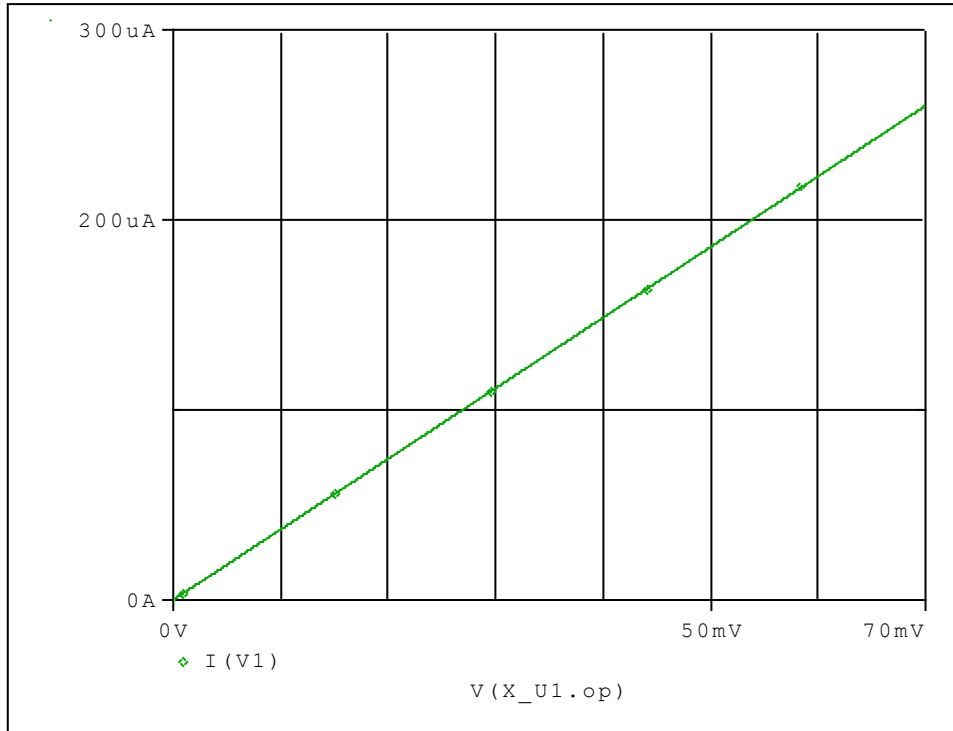


Simulation Result

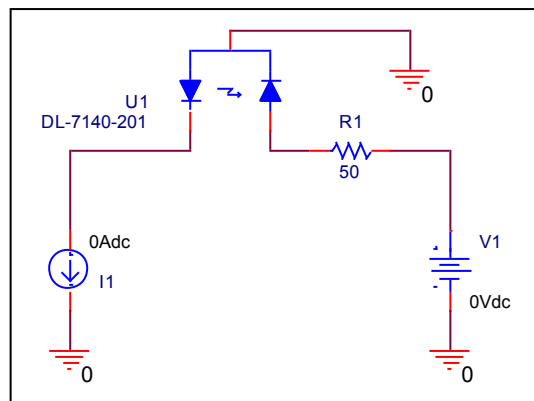
Po [mW]	IF [mA]		Error (%)
	Measurement	Simulation	
0.010	30.000	29.990	0.033
20.000	50.000	49.980	0.040
40.000	70.000	69.980	0.029
60.000	90.000	89.980	0.022
80.000	110.000	110.000	0.000

Monitor Current vs. Optical Output Power characteristics

Circuit simulation result

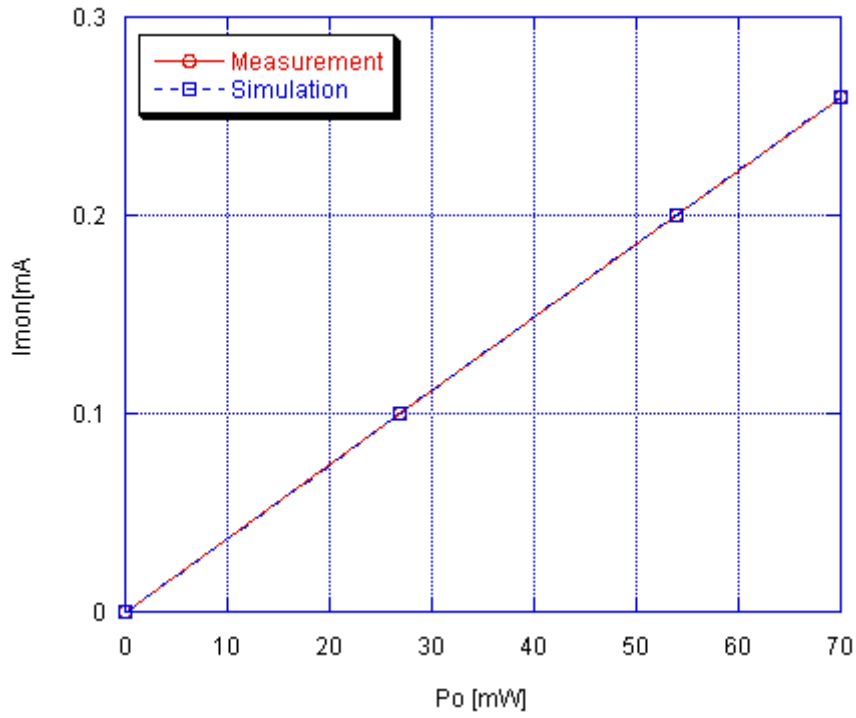


Evaluation circuit



Comparison graph

Circuit simulation result



Simulation Result

Imon[mA]	Po[mW]		Error (%)
	Measurement	Simulation	
0.100	26.920	26.920	0.000
0.200	53.840	53.840	0.000
0.260	70.000	70.000	0.000