

Device Modeling Report

COMPONENTS: Laser Diode
PART NUMBER: DL-4038-025
MANUFACTURER: SANYO

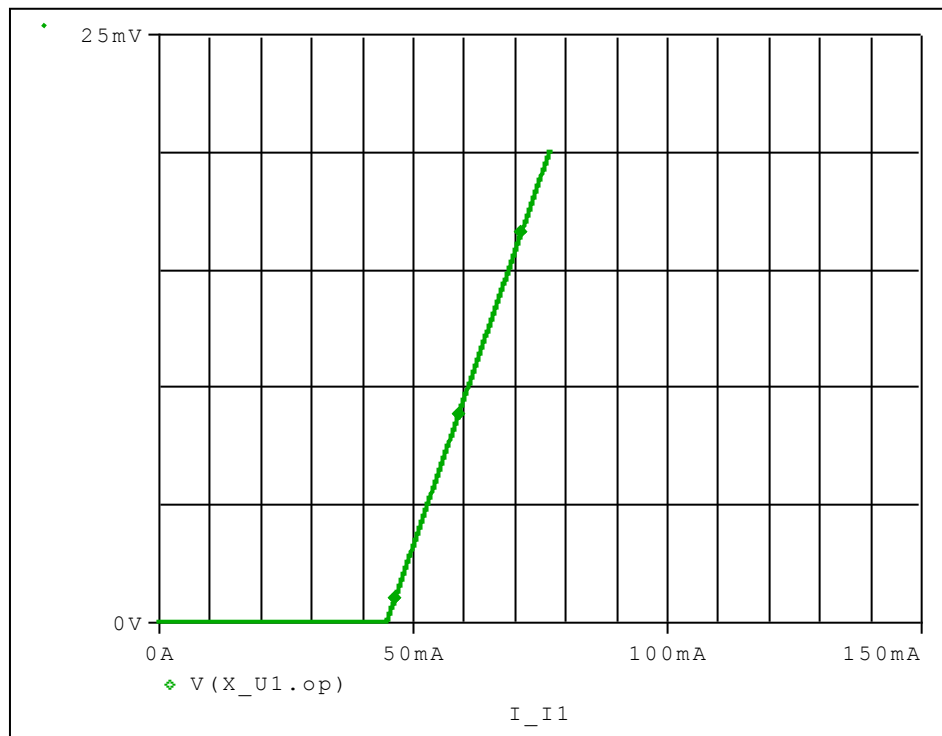


Bee Technologies Inc.

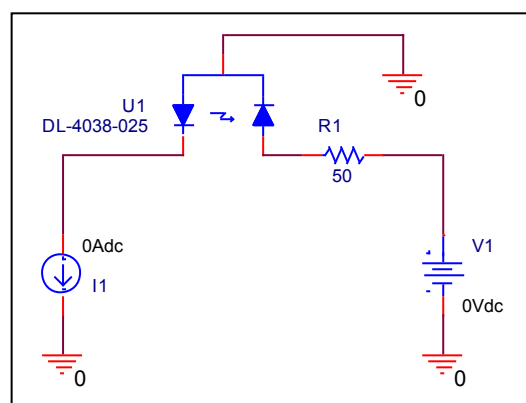
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Optical Output Power vs. Forward current characteristics

Circuit simulation result

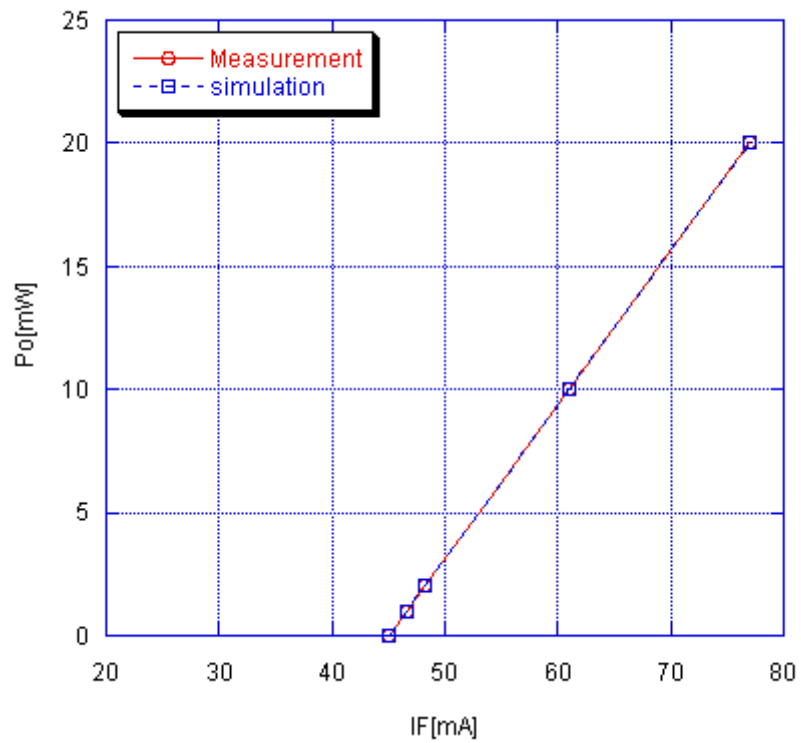


Evaluation circuit



Comparison graph

Circuit simulation result

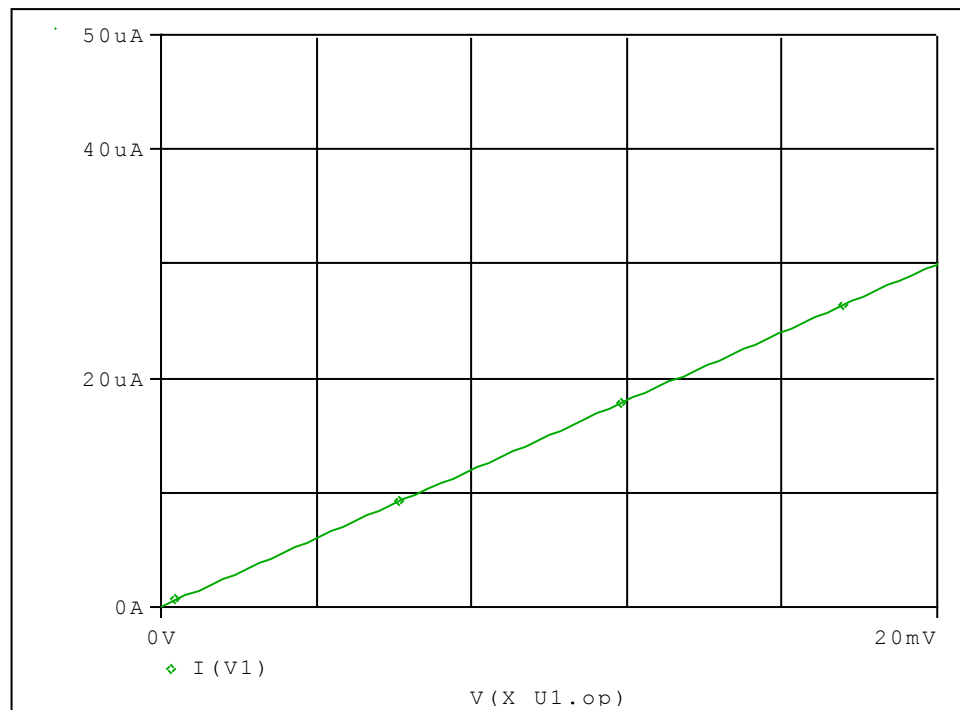


Simulation Result

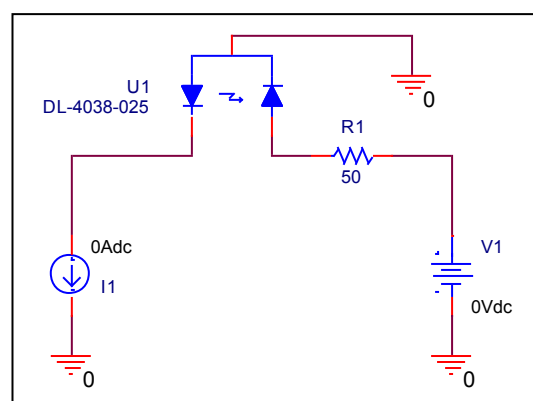
Po[mW]	IF[mA]		Error (%)
	Measurement	Simulation	
0.010	45.000	44.980	0.044
1.000	46.600	46.560	0.086
2.000	48.200	48.170	0.062
5.000	53.000	52.970	0.057
10.000	61.000	60.970	0.049
20.000	77.000	76.980	0.026

Monitor Current vs. Optical Output Power characteristics

Circuit simulation result

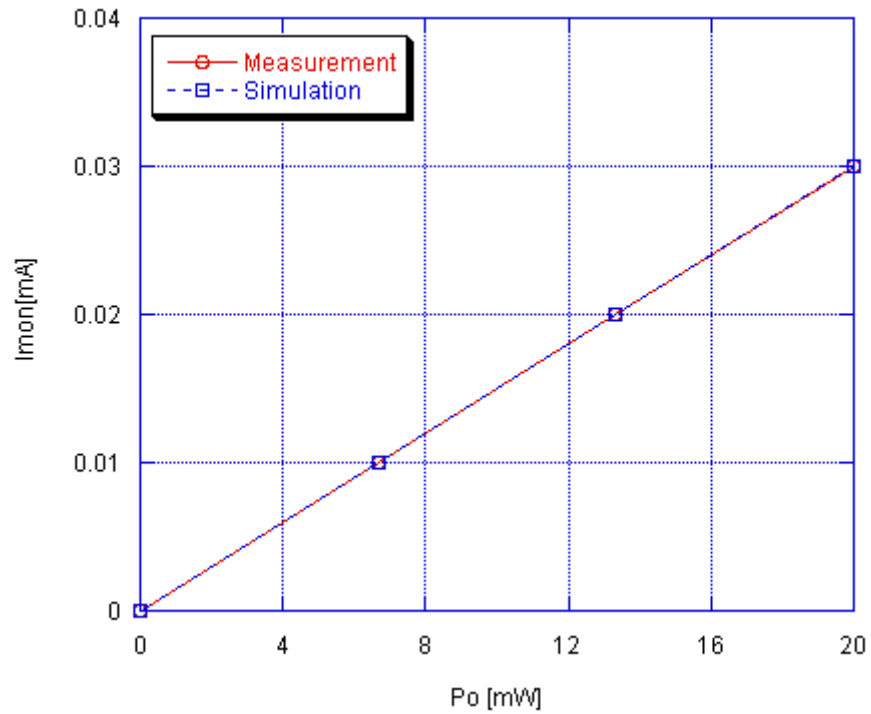


Evaluation circuit



Comparison graph

Circuit simulation result



Simulation Result

Imon[mA]	Po [mW]		Error (%)
	Measurement	Simulation	
0.010	6.666	6.666	0.000
0.020	13.333	13.333	0.000
0.030	20.000	20.000	0.000