

Device Modeling Report

COMPONENTS: Laser Diode
PART NUMBER: DL-3150-105
MANUFACTURER: SANYO

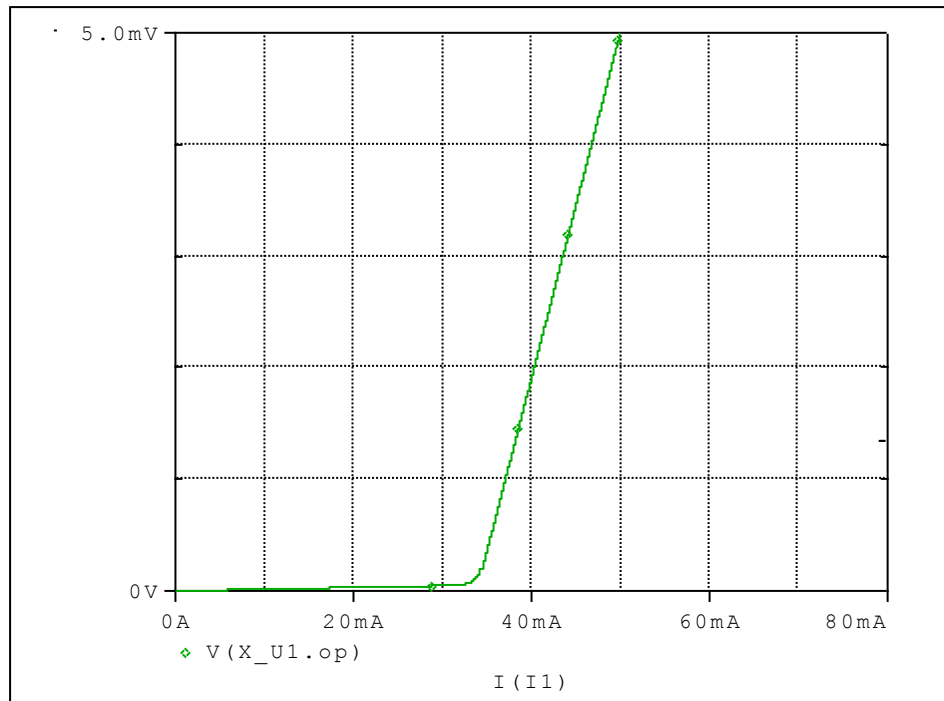


Bee Technologies Inc.

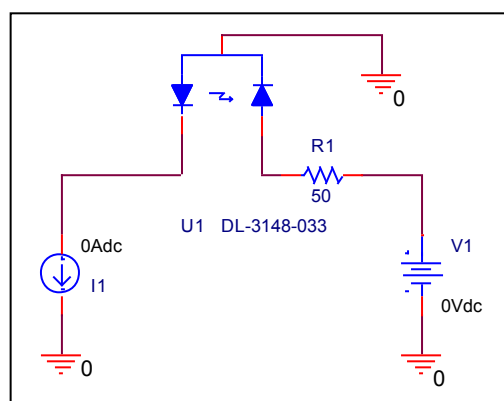
PSpice model parameter	Model description
IS	Saturation Current
N	Emission Coefficient
RS	Series Resistance
IKF	High-injection Knee Current
CJO	Zero-bias Junction Capacitance
M	Junction Grading Coefficient
VJ	Junction Potential
ISR	Recombination Current Saturation Value
BV	Reverse Breakdown Voltage(a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

Optical Output Power vs. Forward current characteristics

Circuit simulation result

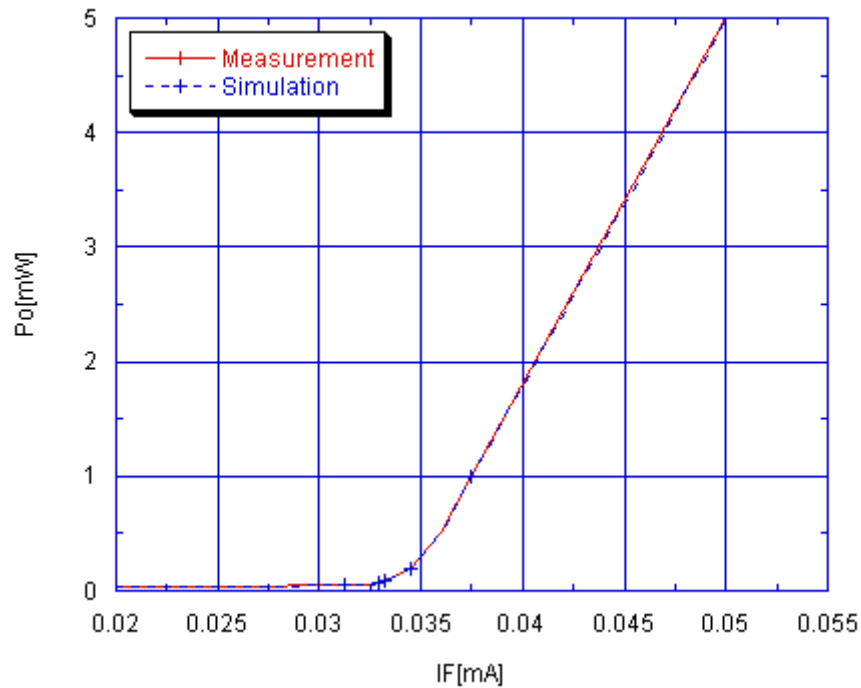


Evaluation circuit



Comparison graph

Circuit simulation result

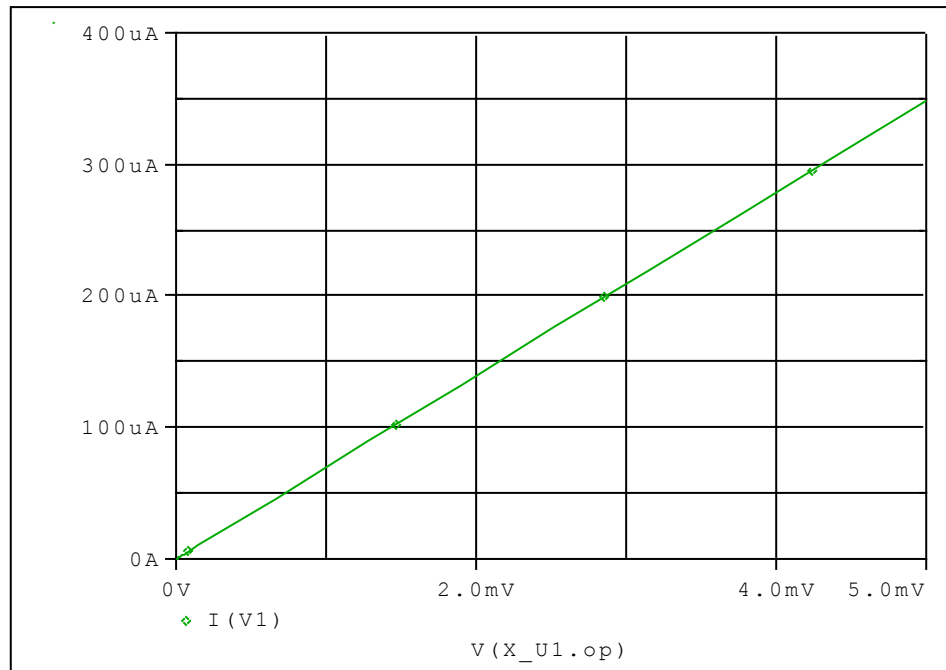


Simulation Result

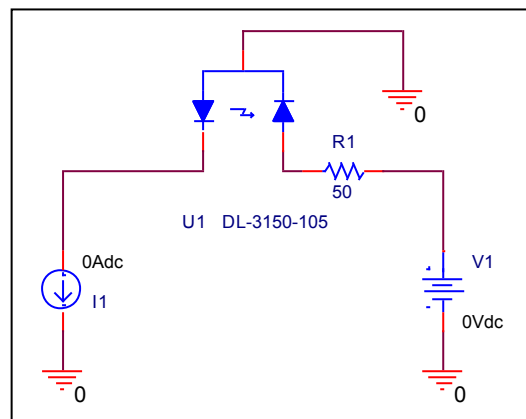
Po[mW]	IF[mA]		Error (%)
	Measurement	Simulation	
0.010	32.000	31.800	0.625
0.200	34.500	34.500	0.000
0.500	35.500	35.400	0.282
1.000	37.600	37.600	0.000
2.000	40.300	40.300	0.000
5.000	50.000	50.000	0.000

Monitor Current vs. Optical Output Power characteristics

Circuit simulation result

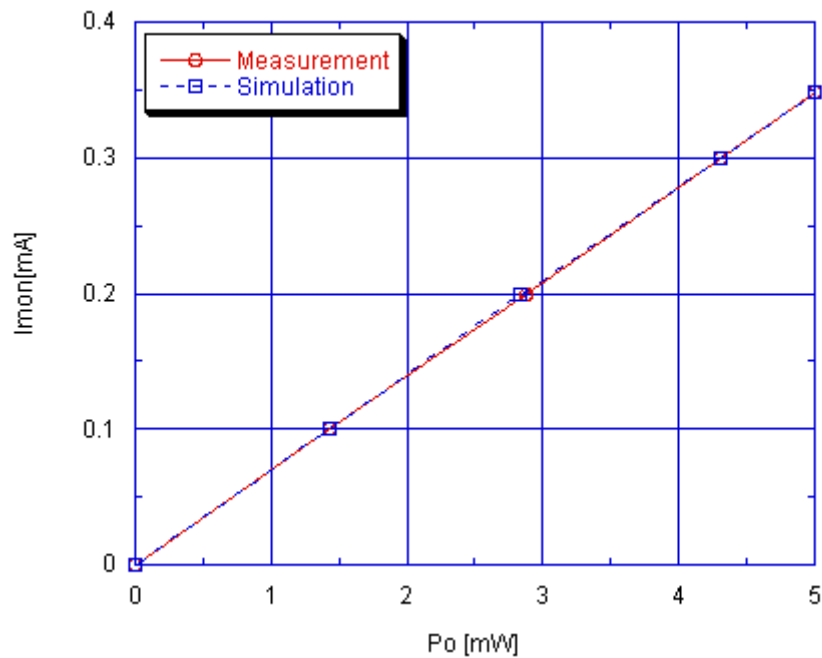


Evaluation circuit



Comparison graph

Circuit simulation result



Simulation Result

I _{mon} [mA]	P _o [mW]		Error (%)
	Measurement	Simulation	
0.100	1.436	1.435	0.070
0.200	2.873	2.832	0.035
0.300	4.310	4.310	0.000
0.348	5.000	5.000	0.000