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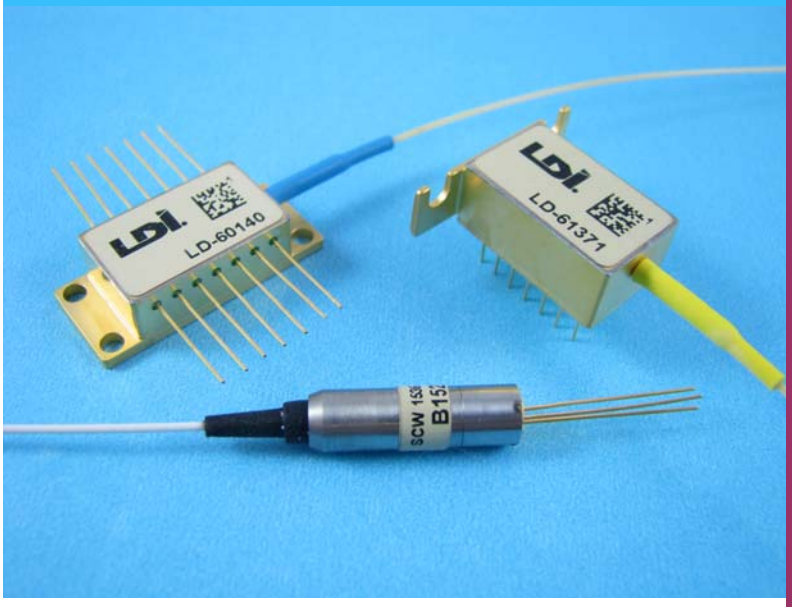
Laser Diode Incorporated
ISO 9001:2000 Certified

SCW Series: Instrument Laser Modules



- Wavelengths: 1310nm, 1550nm, 1625nm and 1650nm
- High Peak Optical Power:
  100 to 180mW @ 1000mA
  Pw = 10 us
  Duty Cycle = 1%
- RoHS Compliant
- Typical Applications*:
  OTDR Instruments
  Spectroscopy
  Photon Counting
  Optical Sensors
  Talk Sets

*Options: Temperature controlled or uncooled versions available. Custom packaging available

Laser Diode Incorporated's High Power SMF coupled laser modules are designed to meet the performance demands of the optical test equipment marketplace. The high peak optical power SCW Series lasers serve 1310nm through 1650nm wavelengths and are available in fully hermetic laser welded 14 pin DIP or 14 Pin Butterfly packages or a 3 pin coaxial package. The 14 pin packaged lasers can include both TEC and temperature sensing thermistors for superior wavelength stability over a wide temperature range.

Characteristics w/TEC: T_a = -30° to 70° C; T_{ld} = +25° C **Conditions: Pw = 10 µs; D/C = 1%**

w/o TEC: T_a = +25° C

Parameters	Symbol	1330 Series			1530 Series			1630 Series			1650 Series			Units
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
Optical Power (Fiber)	P	120			100			100			100			mW
Forward Current	I_f			1000			1000			1000			1000	mA
Threshold Current	I_{th}		30			35			45			45		mA
Forward Voltage	V_f		2			2			2			2		V
Center Wavelength	λ	1290	1310	1330	1530	1550	1570	1615	1625	1635	1640	1650	1665	nm
Spectral Width (RMS)	Δλ			8			10			12			12	nm
Cooling Capacity*	ΔT	45			45			45			45			°C
TEC Voltage*	V_{tec}		1.2	1.6		1.2	1.6		1.2	1.6		1.2	1.6	V
TEC Current*	I_{tec}		600	800		600	800		600	800		600	800	mA
Operating Temperature Range	T_{op}	-30		70	-30		70	-30		70	-30		70	°C
Storage Temperature Range	T_{stg}	-40		85	-40		85	-40		85	-40		85	°C

*Cooled Modules Only

Reliability data available upon request

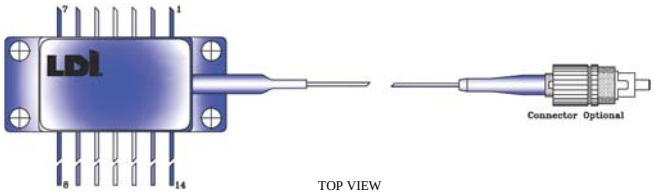
14-pin Butterfly Package and 14-pin DIP Package F Series and G Series

F Series (Floating Thermistor)	
Pin	**Function**
1	cooler anode (+) *
2,3,4,6,7,8,13	no connection
5	laser anode (+), ground
9	laser cathode (-)
10	ground
11,12	thermistor *
14	cooler cathode (-) *

G Series (Ground Thermistor)	
Pin	**Function**
1	cooler anode (+) *
2,3,4,6,7,8,12,13	no connection
5	laser anode (+), ground
9	laser cathode (-)
10	ground, thermistor
11	thermistor *
14	cooler cathode (-) *

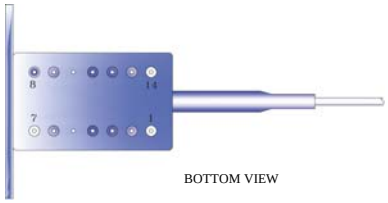
*Cooled Package Only. No connection for uncooled pkg.

14-pin Butterfly Package



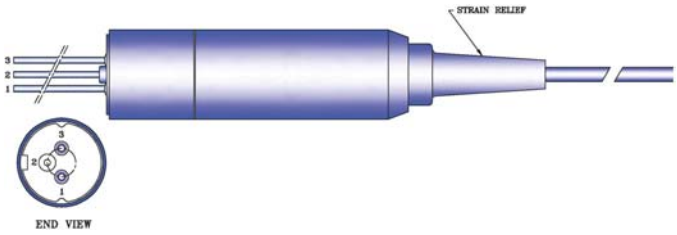
TOP VIEW

14-Pin DIP Package



BOTTOM VIEW

Coaxial Package

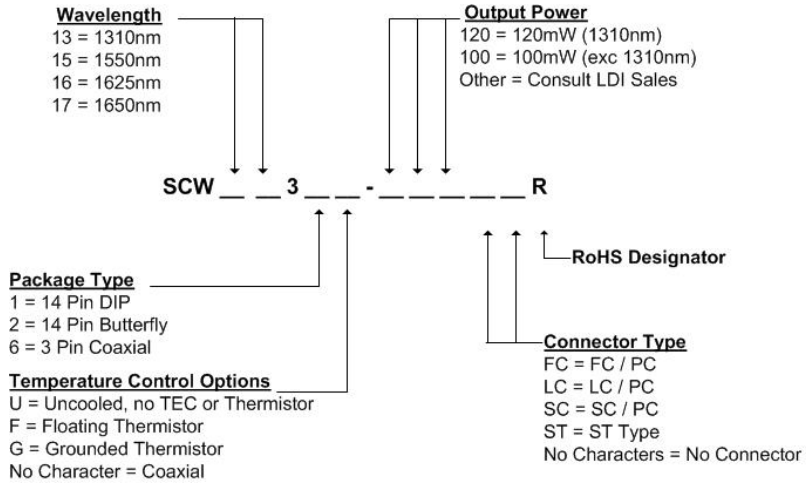


PIN	Function
1	Laser cathode (-)
2	Laser anode (+)/ Ground
3	No Connection

Detailed package drawings are available upon request.

Part Numbering Diagram

Products can be ordered directly from Laser Diode Incorporated or its representatives. When ordering, refer to the information below. For a complete listing of representatives, visit our website at www.laserdiode.com



Personal Hazard and Handling Precautions:
Handle optical fiber with normal care, avoiding stretch, tension, twist, kink or bend abuse. **ESD** precautions apply. Normal aversion reactions will protect from radiation hazards to the eye associated with devices of this kind. 1310nm lasers are Class 3R; higher wavelengths are Class 1 lasers when operated at rated conditions.

Warranty:
Please refer to your product purchase agreement for complete details or check with your Laser Diode sales representative.

Notice:
Laser Diode Incorporated reserves the right to make changes to the products or information contained herein without notice. No liability is assumed as a result of their use or application.