OSI LaserDiode, Inc.
An OSI Systems Company

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ISO 9001:2008 Certified

SCW 1731F-D40R

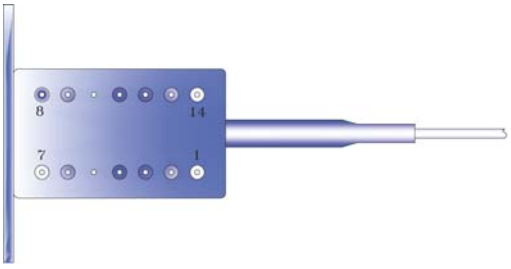
1650 nm Pulsed DFB Laser Diode Module for OSA / OTDR Applications

The SCW 1731F-D40R laser diode module is a 1650 nm Al RWG DFB laser diode packaged in a 14 pin DIL package. The laser diode is optically coupled to an SMF fiber pigtail and includes a thermoelectric cooler and an electrically isolated temperature sensing thermistor. The SCW 1731F-D40R laser diode modules are specifically designed for optical test equipment applications where high peak pulsed optical power is desired. The device is RoHS compliant.

Characteristics (T_{amb} = -20° to 70° C.; T_{ld} = 25° C.):

Parameter	Symbol	Conditions	Min.	Typ.	Max	Units
Optical power (fiber)	P_o	I_f = 400 mA; P_w = 10 us; D/C = 1%	40			mW
Threshold current	I_{th}	P_w = 10 us; D/C = 1%		40		mA
Forward voltage	V_f	I_f = 400 mA; P_w = 10 us; D/C = 1%		2	3	V
Reverse voltage	V_r	I_r = 10 uA	2			V
Center wavelength	λ	I_f = 400 mA; P_w = 10 us; D/C = 1%	1646	1650	1654	nm
Spectral width (RMS)	$\Delta\lambda$	I_f = 400 mA; P_w = 10 us; D/C = 1%		0.5		nm
Thermistor resistance	R	T_{ld} = 25° C.	9.9	10.0	10.1	KΩ
Thermistor B constant	B	B25/50	3910.9	3950.0	3989.9	K
Cooling capacity	ΔT	I_f = 400 mA; P_w = 10 us; D/C = 1%	45			°C
TEC Voltage	V_{tec}	I_f = 400 mA; P_w = 10 us; D/C = 1%			1.5	V
TEC Current	I_{tec}	I_f = 400 mA; P_w = 10 us; D/C = 1%			1.5	A
Fiber Length	L	per 55-2500-0090-01	1			Meter
Operating temp. range	T_{op}	I_f = 400 mA; P_w = 10 us; D/C = 1%	-30		70	°C
Storage temp. range	T_{stg}	Non operating	-40		85	°C

Detailed package drawing available upon request



Pin Assignments	
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 Anode (-)

Personal Hazard and Handling Precautions:
ESD precautions apply.
Normal aversion reactions will protect from radiation hazards to the eye associated with devices of this kind.
IEC Class 1 when operated at rated conditions.

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

Notice:
OSI 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.