

SCW 1532-500R

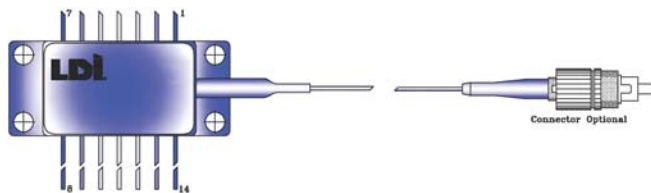
1550 nm High Power Pulsed Laser Diode Module for OSA / OTDR Applications

The SCW 1532-500R laser diode module is a High Power 1550 nm Al RWG F/P laser diode packaged in a 14 pin butterfly 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 1532-500R 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 ($T_{amb} = 0^{\circ} \text{ C}$; $T_{id} = 25^{\circ} \text{ C}$):

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Optical power (fiber)	P_o	$I_f = 3000 \text{ mA}$; $P_w = 10 \text{ us}$; $D/C = 1\%$	500			mW
Threshold current	I_{th}	$P_w = 10 \text{ us}$; $D/C = 1\%$		70		mA
Forward voltage	V_f	$I_f = 3000 \text{ mA}$; $P_w = 10 \text{ us}$; $D/C = 1\%$		2	3	V
Center wavelength	λ	$I_f = 3000 \text{ mA}$; $P_w = 2\text{ns} - 20 \text{ us}$; $D/C = 1\%$	1530	1550	1570	nm
Spectral width (RMS)	$\Delta\lambda$	$I_f = 3000 \text{ mA}$; $P_w = 10 \text{ us}$; $D/C = 1\%$		10	12	nm
Pulse Droop	P_D	$I_f = 3000 \text{ mA}$; $P_w = 20 \text{ us}$; $D/C = 1\%$			20	%
Monitor Current	I_{MON}	$P_o = 5\text{mW CW}$; $V_{RPD} = 5\text{V}$	0.5		25	μA
Monitor Dark Current	I_D	$V_{RPD} = 5\text{V}$			100	nA
Thermistor resistance	R	$T_{id} = 25^{\circ} \text{ C}$.	9.9	10.0	10.1	$\text{K}\Omega$
Thermistor B constant	B	B25/50	3910.9	3950.0	3989.9	K
Cooling capacity	ΔT	$I_f = 3000 \text{ mA}$; $P_w = 10 \text{ us}$; $D/C = 1\%$	40			$^{\circ}\text{C}$
TEC Voltage	V_{tec}	$I_f = 3000 \text{ mA}$; $P_w = 10 \text{ us}$; $D/C = 1\%$			1.5	V
TEC Current	I_{tec}	$I_f = 3000 \text{ mA}$; $P_w = 10 \text{ us}$; $D/C = 1\%$			1.5	A
Fiber Length	L	per outline	1			Meter
Operating temp. range	T_{op}	$I_f = 3000 \text{ mA}$; $P_w = 10 \text{ us}$; $D/C = 1\%$	0		65	$^{\circ}\text{C}$
Storage temp. range	T_{stg}	Non operating	-40		85	$^{\circ}\text{C}$

Detailed package drawing available upon request



Pin	Function
1	TEC (+)
2	Thermistor
3,4	N/C
5	Thermistor
6,7,8,9	N/C
10	Laser Anode
11	Laser Cathode
12	N/C
13	Case Gnd
14	TEC (-)

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.