

SCW 1732-BGR

1650 nm High Power FBG Pulsed Laser Diode Module for OSA / OTDR Applications

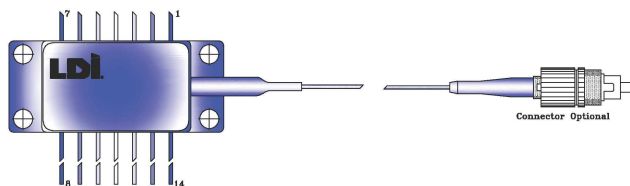
The SCW 1732-BGR laser diode module is a High Power 1650 nm RWG F/P laser diode packaged in a 14 pin butterfly package. The laser diode is optically coupled to an SMF fiber pigtail that includes a bragg grating to stabilize wavelength over a variety of operating conditions. The modules include a thermoelectric cooler and an electrically isolated temperature sensing thermistor for enhanced thermal stability. The module also features a monitor detector for optical feedback control. The SCW 1732-BGR 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 ($T_{amb} = 0^{\circ}$ to 65° C; $T_{ld} = 25^{\circ}$ C):

Parameter	Symbol	Conditions	Min.	Typ.	Max	Units
Optical power (fiber)	P_o	$P_w = 10 \text{ us}; D/C = 1\%$	275			mW
Forward drive current	I_f	$P_w = 10 \text{ us}; D/C = 1\%$		2100	3000	mA
Threshold current	I_{th}	$P_w = 10 \text{ us}; D/C = 1\%$		70		mA
Forward voltage	V_f	$P_w = 10 \text{ us}; D/C = 1\%$		3	4	V
Center wavelength	λ	$P_w = 3 \text{ ns} - 10 \text{ us}; D/C = 1\%$	1649	1650	1651	nm
Spectral width (RMS)	$\Delta\lambda$	$P_w = 10 \text{ us}; D/C = 1\%$		0.6		nm
Pulse Droop	P_D	$P_w = 10 \text{ us}; D/C = 1\%$			20	%
Monitor Current	I_{MON}	$P_o = 5\text{mW CW}; V_{RPD} = 5\text{V}$	0.5		100	μA
Monitor Dark Current	I_D	$V_{RPD} = 5\text{V}$			100	nA
Thermistor resistance	R	$T_{ld} = 25^{\circ}$ C.	9.9	10.0	10.1	K Ω
Thermistor B constant	B	B25/50	3910.9	3950.0	3989.9	K
Cooling capacity	ΔT	$P_w = 10 \text{ us}; D/C = 1\%$	60			$^{\circ}\text{C}$
TEC Voltage @ 55° ΔT	V_{tec}	$P_w = 10 \text{ us}; D/C = 1\%$		1.2	1.6	V
TEC Current @ 55° ΔT	I_{tec}	$P_w = 10 \text{ us}; D/C = 1\%$		800	1500	mA
Fiber Length	L	per outline	1			Meter
Operating temp. range	T_{op}	$P_w = 10 \text{ us}; D/C = 1\%$	0		65	$^{\circ}\text{C}$
Storage temp. range	T_{stg}	Non operating	-40		85	$^{\circ}\text{C}$

Detailed package drawing available upon request

Butterfly Package:



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

ESD precautions apply.
Normal aversion reactions will protect from radiation hazards to the eye associated with devices of this kind.
IEC Class 3R 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.