

PRELIMINARY PRODUCT DATA SHEET

SCW 15C2-100R

1550 nm High Power CW Laser Diode Module

Description:

The SCW 15C2-100R 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 15C2-100R laser diode modules are specifically designed for applications where high levels of optical power is desired. The device is RoHS compliant.

Characteristics:

Parameter	Symbol	Conditions	Min.	Typ.	Max	Units
Optical power (fiber)	P_o	$T_{amb} = -20^{\circ} \text{ to } 65^{\circ} \text{ C.}; T_{ld} = 25^{\circ} \text{ C}$	100			mW
Forward drive current	I_f	$T_{amb} = -20^{\circ} \text{ to } 65^{\circ} \text{ C.}; T_{ld} = 25^{\circ} \text{ C}$		500	700	mA
Threshold current	I_{th}	$T_{amb} = -20^{\circ} \text{ to } 65^{\circ} \text{ C.}; T_{ld} = 25^{\circ} \text{ C}$		45		mA
Forward voltage	V_f	$T_{amb} = -20^{\circ} \text{ to } 65^{\circ} \text{ C.}; T_{ld} = 25^{\circ} \text{ C}$		2	3.5	V
Center wavelength	λ	$T_{amb} = -20^{\circ} \text{ to } 65^{\circ} \text{ C.}; T_{ld} = 25^{\circ} \text{ C}$	1530	1550	1570	nm
Spectral width	$\Delta\lambda$	$T_{amb} = -20^{\circ} \text{ to } 65^{\circ} \text{ C.}; T_{ld} = 25^{\circ} \text{ C}$		8		nm
Thermistor resistance	R	$T_{ld} = 25^{\circ} \text{ C.}$	9.9	10.0	10.1	K Ω
Thermistor B constant	B	B25/50	3910.9	3950.0	3989.9	K
Cooling capacity	ΔT	$T_{ld} = 25^{\circ} \text{ C.}$	45			$^{\circ}\text{C}$
TEC Voltage @ $40^{\circ} \Delta T$	V_{tec}	$T_{ld} = 25^{\circ} \text{ C.}$		1.2	1.6	V
TEC Current @ $40^{\circ} \Delta T$	I_{tec}	$T_{ld} = 25^{\circ} \text{ C.}$		800	1500	mA
Fiber Length	L	per outline	1			Meter
Operating temp. range	T_{op}	$T_{ld} = 25^{\circ} \text{ C.}$	-20		65	$^{\circ}\text{C}$
Storage temp. range	T_{stg}	Non operating	-40		85	$^{\circ}\text{C}$

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

