Preliminary

RLM3 – 1310nm DFB Receptacle Laser

DESCRIPTION

The RLM3 series of modules incorporate highly linear MQW DFB lasers emitting at 1310 nm, hermetically sealed in industry standard coaxial packages with receptacle ports. These lasers are especially suited as uncooled, low cost light sources for analog applications that require a compact footprint.

FEATURES

- High linearity distributed feedback (DFB) laser
- Low RIN noise
- Internal optical isolator
- Internal monitor photodiode
- Wide operating temperature range
- RoHS compliant

APPLICATIONS

- CATV return path
- RF over fiber

MODEL OPTIONS

RDLMR3 - X - N - y - z

X:	Pin Out
A:	Type A

N:	# of Isolators
1:	Single

y :	Output Power
1 :	≥ 1mW
2 :	≥ 2mW
3 :	≥ 3mW
4 :	≥ 4mW

z :	Connector
FU :	FC/UPC

MAXIMUM RATINGS

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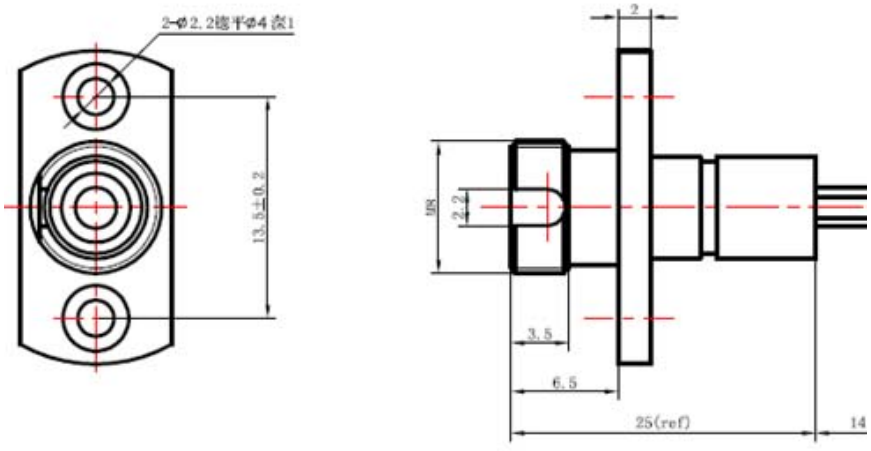
PARAMETER	SYMBOL	CONDITIONS	MIN	MAX	UNIT
Storage Temperature	-	Continuous	-40	85	°C
Monitor Photodiode Reverse Voltage	-	60 seconds	-	15	V
		Continuous	-	10	V
Forward DC Laser Current	-	Continuous	-	100	mA
Reverse DC Laser Voltage	-	Continuous	-	1	V

ELECTRO-OPTICAL CHARACTERISTICS					
PARAMETER	SYMBOL	CONDITIONS	MIN	MAX	UNIT
Operating Temperature	T_{OP}	$I_F = I_{OP}$	-20	85	°C
Threshold Current	I_{TH}	T = 25 °C T = 85 °C	--	15 40	mA
Operating Current	I_{OP}	$T = T_{OP}$	-	90	mA
Operating Voltage	V_{OP}		--	2.1	V
Operating Output Power	P_o	See model #			mW
Monitor PD Responsivity	r_{MPD}	--	10	2000	μA
Monitor PD Dark Current	I_D	I_{OP} = 0 mA	--	0.2	μA
Operating Wavelength	λ_{OP}	$I_F = I_{OP}$, $T = T_{OP}$	1290	1330	nm
Side Mode Suppression	SMSR	$I_F = I_{OP}$	30	--	dB
Optical Isolation	ISO	Single	30	--	dB
Tracking Error	E_R		-1.5	+1.5	dB
Bandwidth			3		GHz
2nd Order Intermodulation	IMD2	See Note (1)	--	-50	dBc
3rd Order Intermodulation	IMD3		--	-57	dBc
Relative Intensity Noise	RIN	f = 5 ~ 300 MHz	--	-145	dB/Hz

(1)Test conditions: P_0 at rated power, 25 °C, OMI = 10%, 2-tone, 13 MHz and 19 MHz, received power = -4 dBm

MECHANICAL SPECIFICATIONS AND PINOUT CONFIGURATION

(in mm unless otherwise noted)



PIN	Type A
1	PD+
2/GND	LD+
3	LD-
4	PD-