

1653.7nm DFB TO-CAN datasheet

P/N : WD22-R51-AA

Description

The coaxial heated single-mode laser is a TO-can product assembled from a 1653.72nm direct-modulated laser chip, a built-in heating resistor, a thermistor, a 5pin TO56 base, and other peripheral components .

Features

RoHS compliant

Reliability conforms to Telcordia GR-468

Applications

Civil CH₄ Monitoring

Electrical/Optical Characteristics (T_c = 30°C unless stated otherwise)

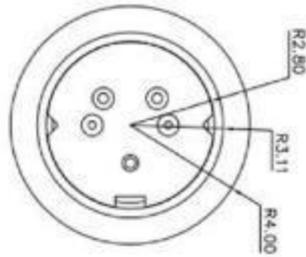
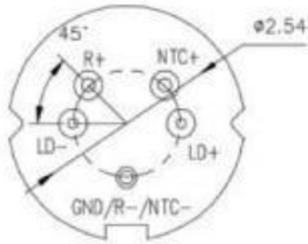
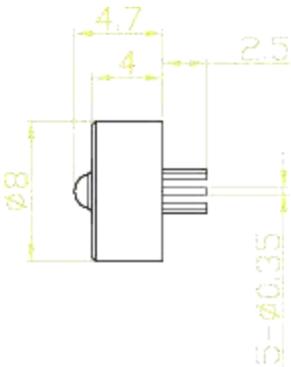
Parameter	Symbol	Value			Units	Note
		Min	Typ.	Max		
Threshold Current	I _{th}	-	-	20	mA	@65°C
Forward Voltage	V _f	1.0	1.3	2	V	I _{op} =40mA
Operating Current	I _{op}	-	40	-	mA	CW
Output Power	P _{op}	-	3.8	-	mW	CW, I _{op} =49mA,@49°C
Side-mode Suppression Ratio	SMSR	35	-	-	dB	CW, I _{op} =40mA
Central Wavelength	λ _c	1649.8	1650.1	1650.4	nm	I _{op} =49mA,@25°C
Spectral Width(-20 dB)	Δλ	-	0.16	0.8	nm	CW, I _{op} =I _{th} +30mA
Wavelength/Temperature Coefficient	Δλ/ΔT		0.1		nm/°C	
Wavelength/Current Coefficient	Δλ/ΔI		0.015		nm/mA	
Series Resistance	R _s	-	10	15	Ω	CW
Heating Resistance	R _t	-	14	-	Ω	CW
Thermistor Resistance	R _{th}	-	10	-	KΩ	@25°C
Thermistor B const	B	3800	3900	4000	K	25-75°C

ABSOLUTE MAXIMUM RATING

Parameter	Symbol	Units	Min	Max
Storage Temperature	Ts	°C	-40	+95
Operating Temperature	To	°C	-10	+55
Relative Humidity	RH	%	5	95
Forward power	Pf	mW	-	20
Forward current	If	mA	-	120
Reverse voltage	Vr	V	-	2

Mechanical Dimensions & Pin Description

TO56



(b) PIN Assignment

未注公差			
X	±0.1	X°	±0.5°
X.X	±0.05	X.X°	±0.1°
X.XX	±0.02	X.XX°	±0.05°
X.XXX	±0.005	X.XXX°	±0.01°