四川梓冠光电科技有限公司
Si chuan Zi Guan photonics technology co., LTD

DFB-1650

The DFB-1650 of Multi-Quantum Well (MQW) Distributed Feedback (DFB) lasers are well suited for low-cost high-speed transmitters.

The devices feature high output power, wide operating temperature range, and high side mode suppression.

Their uncooled, hermetically sealed, TO-56 style packages are a cost-effective means of providing a low-noise light source for intermediate-reach and long-reach digital transmission applications.

Features 特征

- Fabry-Perot Laser
- Low threshold current
- High output power
- Built-in InGaAsP monitor PD
- Wide temperature range operation (Tc= 0℃ to +60℃)

Applications 应用

- Test and Measurement
- OTDR

Parameter	Symbol	Condition	Min	Max	Unit
Operating Case Temperature	T_c	I=I_{op}	-20	85	°C
Storage Temperature	T_{stg}	--	-40	100	°C
Laser Forward Current	--	--	--	120	mA
Laser Reverse Bias	V_r	--	--	2	V
Photodiode Reverse Bias	V_{rpd}	--	--	20	V

Electrical/Optical Characteristics

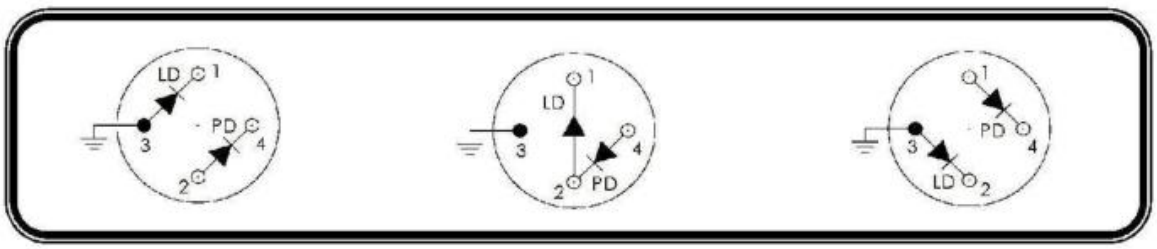
Parameters are at T=25 °C unless otherwise noted.

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Operating Temperature	T	-20		85	°C	
Optical Output Power	P_o	2.0	3.5	--	mW	CW
Threshold Current	I_{th}	-- --	12 35	20 55	mA	T=25 °C T=85 °C
Forward Voltage	V_F	--	1.1	1.6	V	P_o=5.0 mW
Slope Efficiency	SE	0.10	--	--	mW/mA	P_o=5.0 mW, CW
Center Wavelength	λ	1640	1650	1660	nm	P_o=5.0 mW, CW
Spectral Width (-20 dB)	Δλ	--	0.1	1.0	nm	P_o=5.0 mW
Wavelength temperature coefficient	Δλ /ΔT		0.09	0.13	nm/°C	
Side-mode Suppression Ratio	SMSR	35	40	--	dB	P_o=5.0 mW
Rise/Fall Times	t_R, t_F	--	--	0.1	ns	Ppeak=5.0 mW, 20% to 80%
Relaxation Oscillation Frequency	f_R	--	4.5	--	GHz	P_o=5.0 mW
Monitor Current	I_{mon}	20	--	200	μA/mW	V_R=5 V
Monitor Dark Current	I_D	--	--	200	nA	V_R=5 V

SaddleType:

X=pin-out, bottom View

X=A



Pin No.	Pin Function
1	LD"-"
2	PD"+"
3	LD"+" (Case)
4	PD"-"

X=B

Pin No.	Pin Function
1	LD"-"
2	LD"+"/PD"-"
3	Case
4	PD"+"

X=F

Pin No.	Pin Function
1	PD"+"
2	LD"-"
3	LD"+"(Case)
4	PD"-"

Package dimension (in mm):