

NLK1C6DABA

Narrow linewidth DFB laser diode in a butterfly -type 14 pin package with thermo-electric cooler and 55 dB isolator.

FEATURES

- * Wavelength Range 1550 - 1560 nm
- * Spectral Linewidth 100kHz

ABSOLUTE MAXIMUM RATINGS($T_{sub}=25deg.C$)

Parameter	Symbol	Ratings	Units
Laser diode reverse voltage	V_R	2.0	V
Laser diode forward current	I_F	350	mA
Operating case temperature	T_{case}	-5 to 55	deg.
Storage temperature	T_{stg}	-20 to 70	deg.
Photodiode reverse voltage	V_{DR}	10	V
Photodiode forward current	I_{DF}	10	mA
Peltier current	I_P	1.4	A

ELECTRICAL/OPTICAL CHARACTERISTICS($T_{sub}=30deg.C$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units	Data
Forward voltage	V_F	$I_F=30mA$		1	1.5	V	Deliver
Threshold current	$I_{(TH)}$	CW		25	40	mA	Deliver
Fiber output power	ϕ_e	CW, $I_F=300mA$	8	12		mW	Deliver
Peak wavelength	λ_p	CW, $I_F=300mA$	1540	1550	1560	nm	Deliver
Side mode suppression ratio	SMS	CW, $I_F=300mA$	35	40		dB	Deliver
Spectral linewidth	$\Delta\nu$	CW, $I_F=300mA$			100	kHz	Deliver
Monitoring current(PD)	$I_{R(E)}$	CW, $V_{DR}=5V, I_F=300mA$	0.1			mA	Deliver
Dark current(PD)	$I_{r(0)}$	CW, $V_{DR}=5V$			100	nA	Deliver
Tracking error	E_R	$I_{R(E)}=constant$	-0.5		+0.5	dB	Deliver
Cooling Capacity	ΔT_{PE}	$I_F=300mA, T_{case}=55deg$	30	35		deg.	Option
Peltier Current	I_{PE}	$T_{case}=-5 to 55deg.$			1	A	Option
Peltier Voltage	V_{PE}	$T_{case}=-5 to 55deg.$			2	V	Option
Thermister Resistance	R	$T_{sub}=25deg.$		10		k Ω	
Isolation	I_s	$T_{sub}=25deg.$		55		dB	

$$\Delta I_F = I_F - I_{(TH)}, \Delta T = |T_{case} - T_{sub}|$$



WARNING

If you plan to use these products in equipment which could endanger lives in the event of a product failure, please consult an NEL engineer before usage. Improper application of these products may endanger life. To avoid possible injury, make certain these products are used in a redundant configuration.

- 1 These products are subject to export regulations and restrictions set force by the Japanese Government.
- 2 NTT Electronics Corporation reserves the right to make changes in design, specification or related information at any time without prior notice.
- 3 The characteristics which are not specified in the data sheet are not guaranteed.
- 4 The characteristics under the different operation conditions from the ones specified in the data sheet are not guaranteed.