

NLK1B5EAAA

1290-1360 nm DFB laser diode in a butterfly-type 14 pin package with thermo-electric cooler.
Pigtail fiber is connectorized with an FC/PC connector.

FEATURES

- * Wavelength Range 1290 - 1360 nm, ITU-T grid wavelength
- * Fiber Output Power 10mW

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	150	mA
Operating case temperature	T_{case}	-5 to 70	deg.
Storage temperature	T_{stg}	-40 to 85	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($T_{sub}=25deg.C$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Forward voltage	V_F	$I_F=30mA$		1.2	1.6	V
Threshold current	$I_{(TH)}$	CW		10	20	mA
Fiber output power	ϕ_e	CW, $I_F=80mA$	10			mW
Peak wavelength	λ_p	CW, $\phi_e=10mW$	-1	ITU-T	+1	nm
Spectral linewidth*	$\Delta\nu$	CW, $\phi_e=10mW$		2		MHz
Side mode suppression ratio	SMS	CW, $\phi_e=10mW$	35			dB
Monitoring Current(PD)	$I_{R(E)}$	CW, $\phi_e=10mW$	0.1			mA
Dark current(PD)	$I_{r(0)}$	CW, $V_{DR}=5V$			100	nA
Tracking error	E_R	$I_{R(E)}=constant$	-0.5		+0.5	dB
Cooling capacity*	ΔT_{PE}	$\phi_e=10mW, T_{case}=70deg$	45			deg.
Peltier current	I_{PE}	$T_{case}=-5 to 70deg.$			1	A
Peltier voltage	V_{PE}	$T_{case}=-5 to 70deg.$			2	V
Thermister resistance*	R	$T_{sub}=25deg.$		10		k Ω
Isolation*	I_s	$T_{sub}=25deg.$		30		dB

$$\Delta T = | T_{case} - T_{sub} |$$

* Data is not attached.



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.