

KLF-551C-30**Description**

KLF-551C-30 series are InGaAsP laser diodes which provide a stable, single transverse mode with 1550nm wavelength. The high performance behavior of the chip makes it suitable for low-cost short and intermediate reach applications.

FEATURES

- Low threshold current, low operating current
- Stable single transverse mode emission
- MQW active layer
- PBH structure
- Wide operating temperature range from -40°C to 85°C
- Modulation capability up to 1.25Gbps

APPLICATIONS

- FTTH (Fiber To The Home)
- Gigabit Ethernet
- Fiber Channel

Absolute Maximum Ratings

Parameter	Symbol	Rating	unit
Optical output power	P_o	8	mW
Reverse voltage	V_{RL}	2	V
Operating temperature	T_{op}	$-40 \sim 85$	$^{\circ}\text{C}$
Storage temperature	T_s	$-40 \sim 100$	$^{\circ}\text{C}$

Physical dimension

Parameter	Typ.	Unit
Die length	300	μm
Die width	300	μm
Die height	90	μm

Optical and Electrical Characteristics ($T_{op} = 25^{\circ}\text{C}$)

Parameter	Symbol	Min	Typ	Max	Test condition
Threshold current	I_{th}	-	7	15	
Operating current	I_{op}	-	23	35	$P_o=5\text{mW}$
Operating voltage	V_{op}	-	1.1	1.5	$P_o=5\text{mW}$
Slope efficiency	η	0.2	0.3		$P_o=5\text{mW}$
Peak wavelength	λ_p	1530	1550	1570	$P_o=5\text{mW}$
Spectral width (RMS)	$\Delta\lambda$	-	2	3	$P_o=5\text{mW}$
Perpendicular beam divergence angle	Θ_{\perp}	-	35	-	FWHM, $P_o=5\text{mW}$
Parallel beam divergence angle	Θ_{\parallel}	-	30	-	FWHM, $P_o=5\text{mW}$
Rise time	t_r	-	-	0.5	$I_b=I_{th}$, $P_o=5\text{mW}$, 10~90%
Fall time	t_f	-	-	0.5	$I_b=I_{th}$, $P_o=5\text{mW}$, 10~90%

Specifications are subject to change without notice.

Ordering information

KL	Type	Wavelength	Data rate	Package	Dimension
KODENSHI Laser Diode chip	F: Fabry-Perot(BH)	55: 1550nm	1: 1.25Gbps	C: Chip	30 : 300x300
				S: Chip on	
				submount	

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