

OKI electronic components

OE506G

1.55 μm Edge-Emitting LED

GENERAL DESCRIPTION

The OE506G is a 1.55 μm , edge-emitting LED that can be light sources for optical LAN systems and measuring instruments.

FEATURES

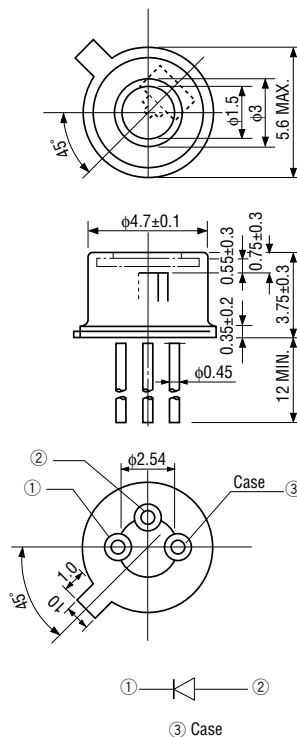
- Edge-emitting type
- High coupled power: 10 μW into a 10 μm core single-mode fiber
: 20 μW into a 50 μm core multimode fiber
- High speed

APPLICATIONS

- LANs
- Optical instruments
- Data communication systems

PACKAGE DIMENSIONS (Unit: mm)

• OE506G



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Conditions	Ratings	Unit
Forward Current	I_F	$T_a=25^\circ\text{C}$	150	mA
Reverse Voltage	V_R		1	V
Operating Temperature	T_{opr}	—	-10 to +65	$^\circ\text{C}$
Storage Temperature	T_{stg}	—	-40 to +90	$^\circ\text{C}$

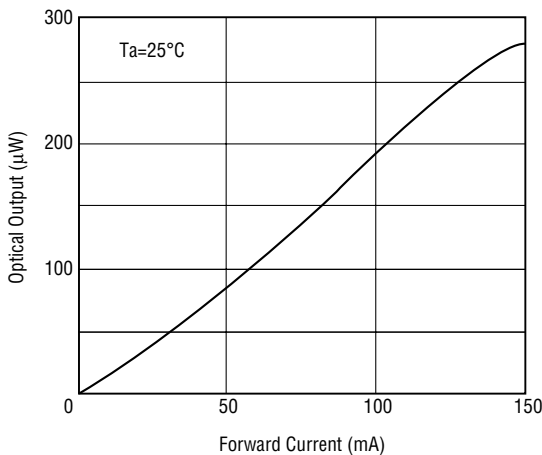
OPTICAL AND ELECTRICAL CHARACTERISTICS

($T_a=25^\circ\text{C}$)

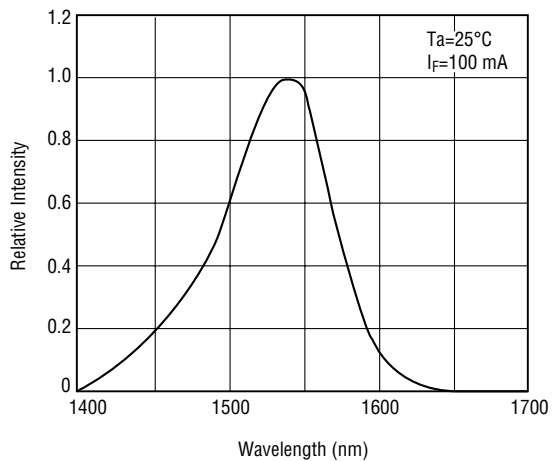
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Optical Output	P_o	$I_F=100\text{ mA}$	150	200	—	μW
Forward Voltage	V_F	$I_F=100\text{ mA}$	—	—	2.0	V
Peak Wavelength	λ_p	$I_F=100\text{ mA}$	1520	1550	1580	nm
Spectral Half Width	$\Delta\lambda$	$I_F=100\text{ mA}$	—	95	130	nm
Cutoff Frequency	f_c	$I_F=100\text{ mA}$ +20 mAp-p -1.5 dB	—	150	—	MHz

TYPICAL CHARACTERISTICS

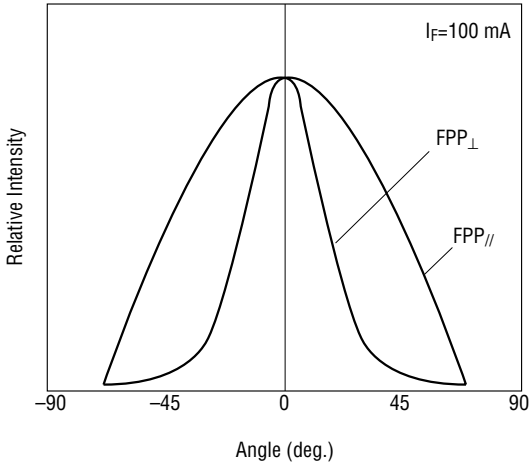
Optical Output vs. Forward Current



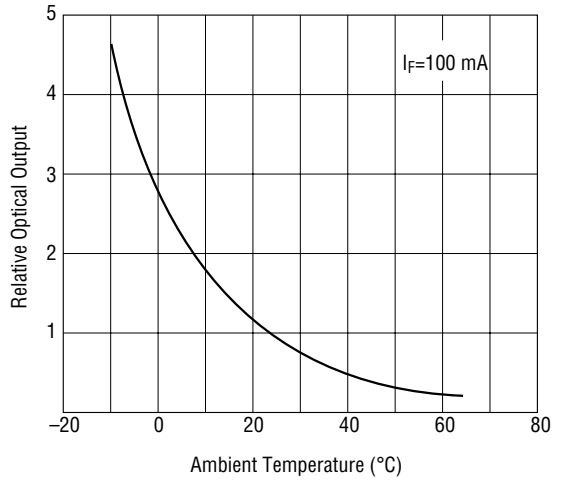
Emission Spectrum



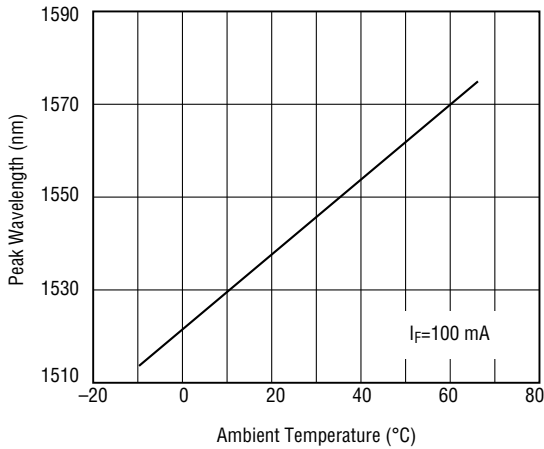
Far-Field Patterns



Temperature Dependence of Optical Output



Temperature Dependence of Peak Wavelength



Frequency Response

