

OKI electronic components

OE5202G

1.55 μm Edge-Emitting LED DIP Module

GENERAL DESCRIPTION

The OE5202G is a 1.55 μm , edge-emitting LED DIP module with a single-mode fiber pigtail. The high coupling efficiency of the OKI EE-LED yields a single-mode fiber output of over 20 μW . The module is an optimal light source for optical LAN systems and measuring instruments.

FEATURES

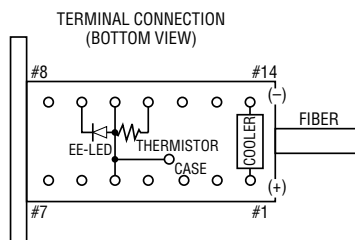
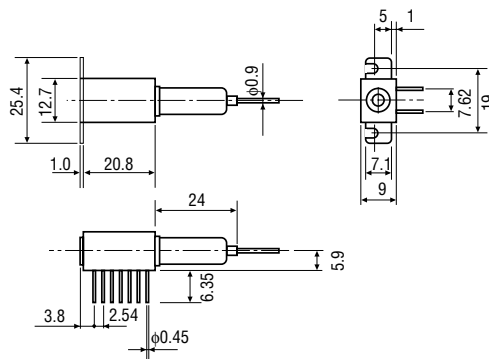
- High output power: $P_f=20 \mu\text{W}$
- Single-mode fiber
- Hermetically-sealed, 14-pin Dual-In-line Package (DIP)
- Includes thermoelectric cooler for temperature control
- High speed

APPLICATIONS

- LANs
- Optical measuring instruments

PACKAGE DIMENSIONS (Unit: mm)

- OE5202G



PIN No.	FUNCTION	PIN No.	FUNCTION
1	COOLER ANODE	8	NC
2	NC	9	EE-LED CATHODE
3	NC	10	EE-LED ANODE, CASE GROUND and THERMISTOR
4	NC	11	THERMISTOR
5	EE-LED ANODE, CASE GROUND and THERMISTOR	12	NC
6	NC	13	NC
7	NC	14	COOLER CATHODE

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
Cooler Current	I_c		1.2	A
Operating Temperature	T_{opr}	—	-20 to +65	$^\circ\text{C}$
Storage Temperature	T_{stg}	—	-20 to +70	$^\circ\text{C}$

OPTICAL AND ELECTRICAL CHARACTERISTICS

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

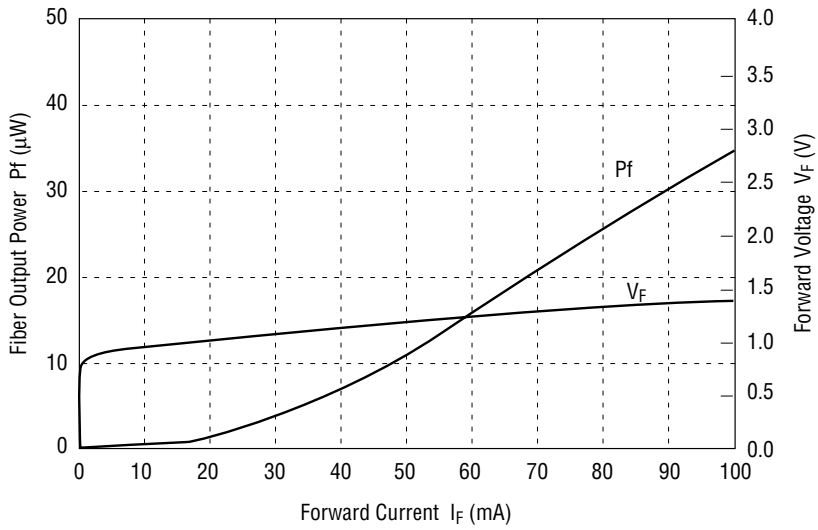
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Fiber Output	Pf	$I_F=100\text{ mA}$	20	24	—	μW
Peak-emission Wavelength	λ_p	$I_F=100\text{ mA}$	1520	1550	1580	nm
Spectral Bandwidth	$\Delta\lambda$	$I_F=100\text{ mA}$	—	70	140	nm
Rise Time	t_r	$I_F=75\text{ mA}$ +50 mAp-p	—	2	—	ns
Fall Time	t_f		—	3	—	ns
Forward Voltage	V_F	$I_F=100\text{ mA}$	—	—	2.0	V
Cooler Capacity	ΔT	$I_F=100\text{ mA}$	40	—	—	$^\circ\text{C}$
Cooler Current	I_c	$\Delta T=40^\circ\text{C}$	—	—	1.2	A
Cooler Voltage	V_c	$\Delta T=40^\circ\text{C}$	—	—	3	V
Thermistor Resistance	Rth	—	—	10	—	$\text{k}\Omega$

FIBER PIGTAIL SPECIFICATIONS

Parameter	Specifications	Unit
Fiber Type	Single-mode	—
Mode Field Diameter	10 ± 1	μm
Cladding Diameter	125 ± 2	μm
Jacket Diameter	900	μm
Length	1 (Min)	m
Connector	FC	—

TYPICAL CHARACTERISTICS

Fiber Output Power vs. Forward Current



Emission Spectrum

