OKI electronic components

OE3202G-004, OE3202G-010

1.3 μm Edge-Emitting LED DIP Module

GENERAL DESCRIPTION

The OE3202G-004 and OE3202G-010 are 1.3 μm, edge-emitting LED DIP modules with single-mode fiber pigtails. The OKI EE-LED (OE3202G-010) features high coupling efficiency, achieving a single-mode fiber output of over 100 μW. The modules are optimal light sources for optical LAN systems and measuring instruments.

FEATURES

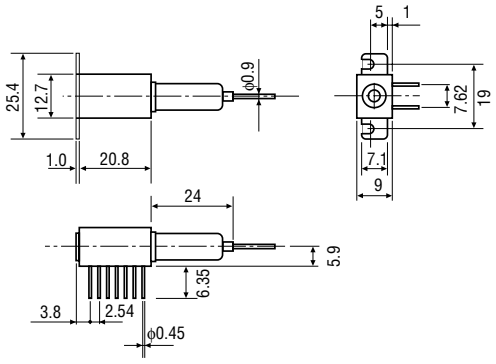
- High output power : Pf=40 μW (OE3202G-004)
  : Pf=100 μW (OE3202G-010)
- Single-mode fiber
- Hermetically-sealed, 14-pin Dual-In-line Package (DIP)
- Includes thermoelectric cooler for temperature control
- High speed

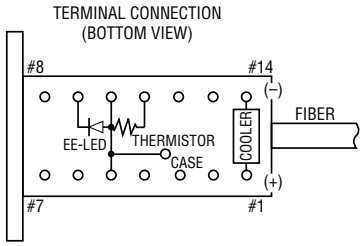
APPLICATIONS

- LANs
- Optical measuring instruments
- Data communication systems

PACKAGE DIMENSIONS (Unit: mm)

- **OE3202G-004, OE3202G-010**





PIN No.	FUNCTION	PIN No.	FUNCTION
1	COOLER ANODE	8	NC
2	NC	9	EE-LED CATHODE
3	NC	10	EE-LED ANODE,
4	NC		CASE GROUND
5	EE-LED ANODE,		and THERMISTOR
	CASE GROUND	11	THERMISTOR
	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	Ta=25°C	150	mA
Reverse Voltage	V_R		1	V
Cooler Current	Ic		1.2	A
Operating Temperature	T_{opr}	—	–20 to +65	°C
Storage Temperature	T_{stg}	—	–20 to +70	°C

OPTICAL AND ELECTRICAL CHARACTERISTICS

(T_{LED}=25°C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Peak-emission Wavelength	λp	I_F=100 mA	1270	1300	1330	nm
Spectral Bandwidth	Δλ	I_F=100 mA	—	60	100	nm
Rise TIme	t_r	I_F=75 mA	—	2	—	ns
Fall Time	t_f	+50 mAp-p	—	3	—	ns
Forward Voltage	V_F	I_F=100 mA	—	—	2.0	V
Cooler Capacity	ΔT	I_F=100 mA	40	—	—	°C
Cooler Current	Ic	ΔT=40°C	—	—	1.2	A
Cooler Voltage	Vc	ΔT=40°C	—	—	3	V
Thermistor Resistance	Rth	—	—	10	—	kΩ

Fiber Output Power

(T_{LED}=25°C)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
OE362G-004	I_F=100 mA	40	50	—	μW
OE362G-010	I_F=100 mA	100	120	—	μW

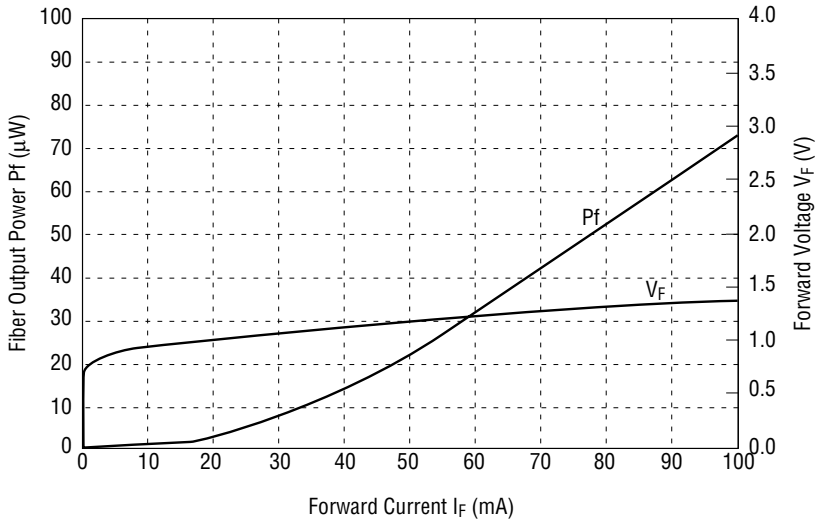
FIBER PIGTAIL SPECIFICATIONS

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

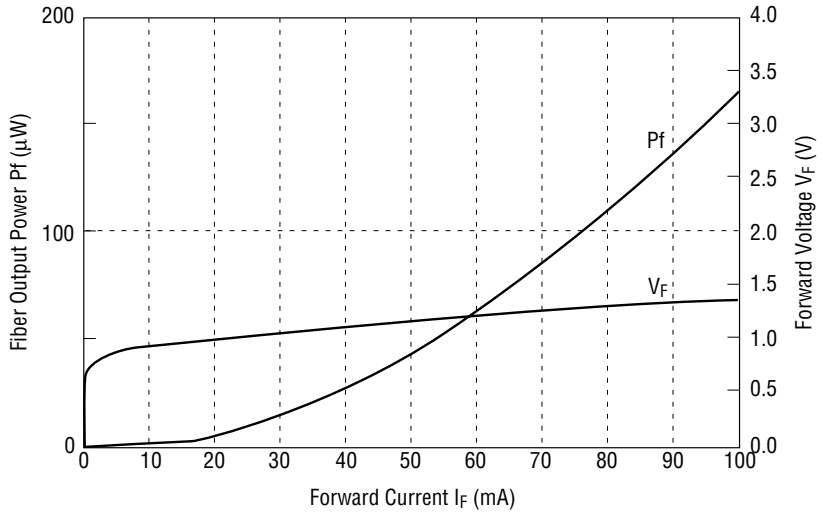
• **OE3202G-004**

Fiber Output Power vs. Forward Current



• **OE3202G-010**

Fiber Output Power vs. Forward Current



- **OE3202G-010**

Emission Spectrum