

OKI electronic components

OE360S

1.3 μm Super-Luminescent Diode (SLD) DIP Module

GENERAL DESCRIPTION

The OE360S is a 1.3 μm , high-power SLD DIP module with a single-mode fiber pigtail. This module is an optimal light source for optical measuring instruments.

FEATURES

- High output power: $P_f=400 \mu\text{W}$
- Single-mode fiber
- Hermetically-sealed, 14-pin Dual-In-line Package (DIP)
- Includes thermoelectric cooler and monitor photo diode for temperature control

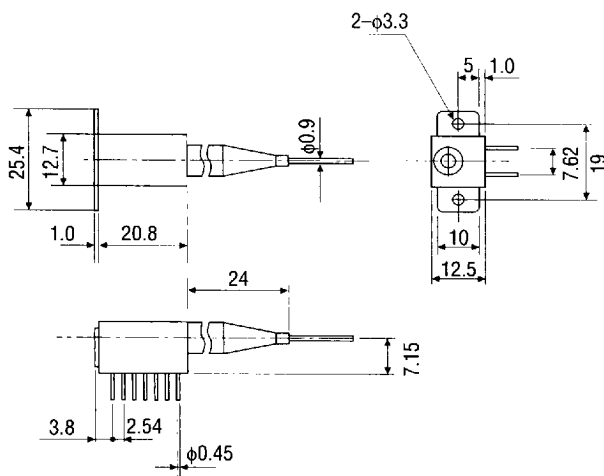
APPLICATIONS

- Optical sensors
- Optical measuring instruments
- Optical transmission systems
- Data communication systems

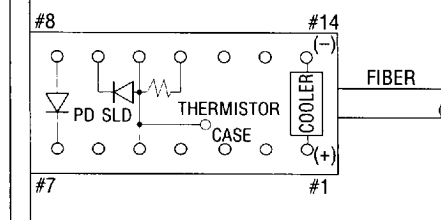
PACKAGE DIMENSIONS

- **OE360S**

(Unit: mm)



TERMINAL CONNECTION
(BOTTOM VIEW)



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

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Conditions	Ratings	Unit
SLD Forward Current	I_f (LD)	$T_a=25^\circ\text{C}$	150	mA
SLD Reverse Voltage	V_r (LD)		1	V
PD Reverse Voltage	V_r (PD)		20	V
PD Forward Current	I_f (PD)		10	mA
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

(Ta=25°C)

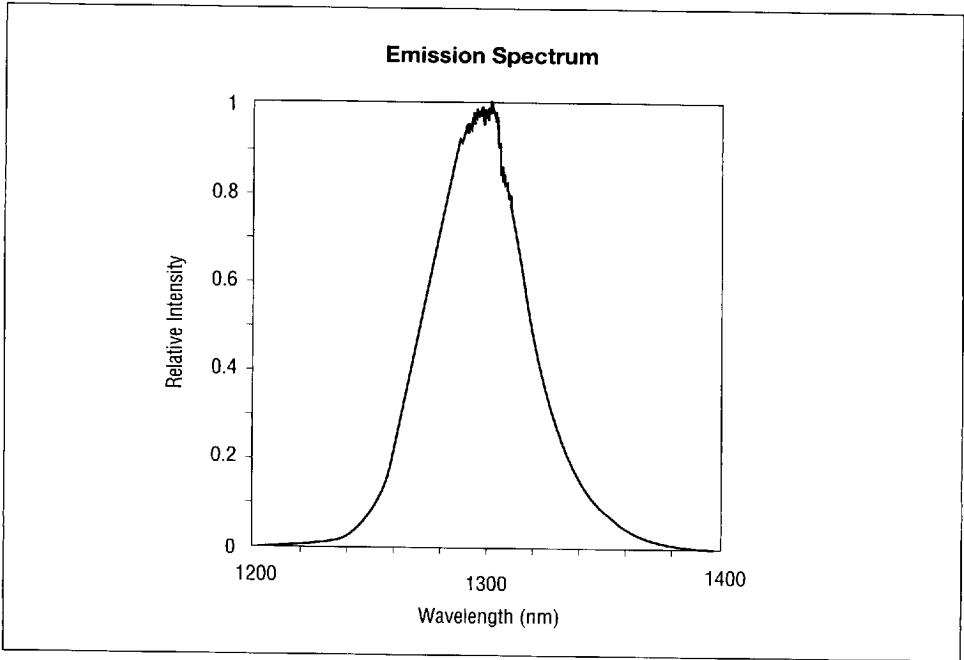
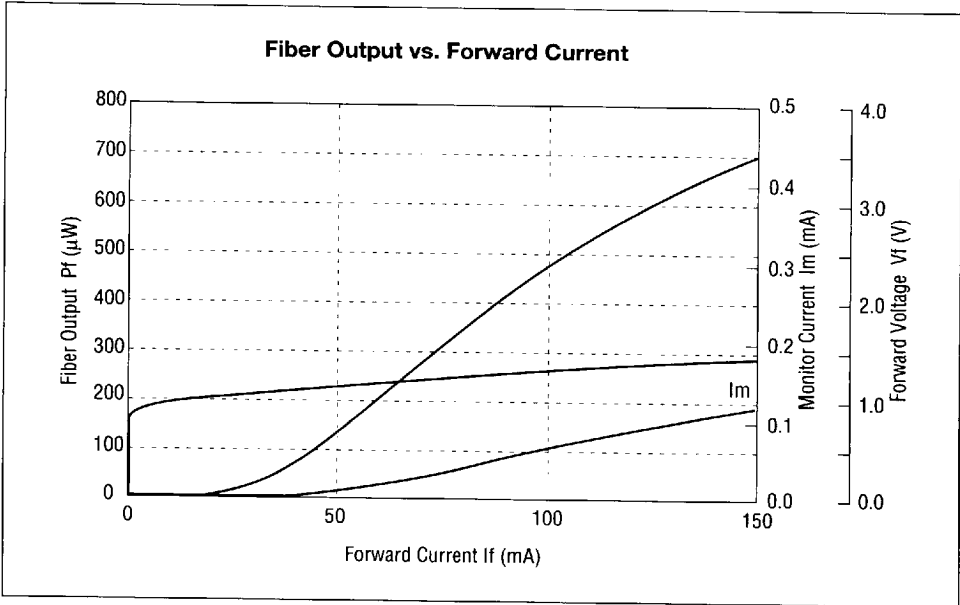
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Fiber Output Power	P_f	$I_f=150\text{ mA}$	400	600	—	μW
Peak Wavelength	λ_p	$I_f=150\text{ mA}$	1270	1300	1330	nm
Spectral Half Width	$\Delta\lambda$	$I_f=150\text{ mA}$	—	30	70	nm
Rise Time	t_r	$I_f=75\text{ mA}+50\text{ mAp-p}$	—	2	—	ns
Fall Time	t_f		—	3	—	ns
PD Dark Current	I_{dark}	V_r (PD)=5 V	—	—	1	μA
Monitor Current	I_m	$I_f=150\text{ mA}$	50	—	—	μA
PD Capacitance	C_t	V_r (PD)=5 V, $f=1\text{ MHz}$	—	15	—	pF
Forward Voltage	V_f	$I_f=150\text{ mA}$	—	—	2.0	V
Cooler Capacity	ΔT	$I_f=150\text{ mA}$	40	—	—	$^\circ\text{C}$
Cooler Current	I_c	$\Delta T=40^\circ\text{C}$	—	—	1.2	A
Thermistor Resistance	R_{th}	—	—	10	—	k Ω

FIBER PIGTAIL SPECIFICATIONS

(Ta=25°C)

Parameter	Specifications	Unit
Type	SM	—
Mode Field Diameter	10^{+1}	μm
Cladding Diameter	125^{+2}	μm
Jacket Diameter	900	μm
Length	1 (Min)	m
Connector	FC	—

TYPICAL CHARACTERISTICS



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