

General Description

OIL18 is an infrared 880nm light emitting diode with high radiated output and medium divergence. The led is mounted in a hermetical metal TO46 housing with flat glass window.

The device can work well in a wide temperature range and with high current, without damaging.

It has been designed especially for encoder market, to be combined with OID7 detector for example.



Applications

IR Emitter for linear and rotary encoder

Match with OID7 photodiode array

Optical coupling

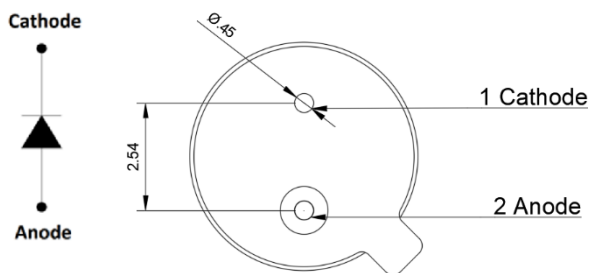
Optical switches

Features

- Standard two-lead TO-46 package
- Very high Optical Output
- 880 nm IR Peak Emission
- Best matching emitter for OID7 diode array
- PINOUT compatible with OD-850WHT
- Medium emission angle ($\pm 25^\circ$)
- Customizations on request

Pin Functions

No.	Name	Function
1	K (BLACK)	Cathode (connected to metal case)
2	A (RED)	Anode



BOTTOM VIEW

Ordering information

OIL18

High emission IR Led in TO-46 Metal-Glass Case
Emitting at 880 nm with a Medium Divergence of $\pm 25^\circ$

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Min	Max	Unit
T _{opr}	Operating Temperature Range	-40	125	°C
T _{stg}	Storage Temperature	-40	125	°C
I _F	Forward Current (DC)		100	mA
V _R	Reverse Voltage		5	V
P	Power Dissipation		200	mW

Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rated conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

T_A = 25°C unless otherwise noted.

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V _F	Forward Voltage	I _f =20mA		1,36		V
		I _f =50mA		1,43		
I _R	Reverse Current	V _R =2V		10		μA
		V _R =5V		10		μA
P _e	Optical Output Power ¹	I _c =20mA		4,8		mW
		I _c =50mA		12		
λ _p	Peak Emission Wavelength	I _f =20mA	865	880	885	nm
Δλ	Spectral Bandwidth at 50 %, Δλ	I _f =20mA		42		nm
t _r	Rise Time	I _f =20mA		1		μs
t _f	Fall Time	I _f =20mA		1		μs

¹ Measured with a integrating sphere.

MECHANICAL DIMENSIONS

Units=mm Mechanical tolerance=+/-0.2mm

