OIL17

TO-46 metal-glass IR LED

General Description

OIL17 is an infrared 880nm light emitting diode with high radiated output and medium divergence. The led in mounted in in a hermetical metal TO-46 housing with 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

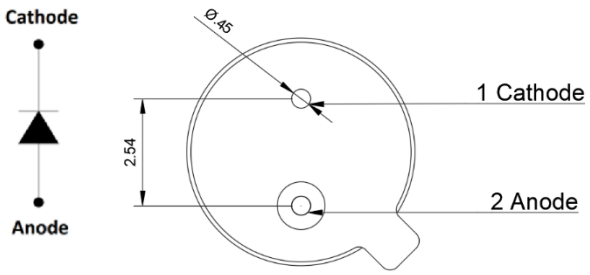
Optical switches

Features

- **Standard two-lead TO-46 package**
- **Best matching emitter for OID7 diode array**
- **TO-46 Metal-Glass Case Enclosure**
- **Infrared Light Emitting at 880 nm**
- **Compatible with OP230W series**
- **Medium emission angle (±25°)**
- **Customizations on request**

Pin Functions

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



BOTTOM VIEW

Ordering information

OIL17	IR Led in TO-46 Metal-Glass Case Emitting at 880 nm with a medium divergence of ±25°

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Min	Max	Unit
Topr	Operating Temperature Range	-40	125	°C
Tstg	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	If=20mA		1,3		V
		If=50mA		1,36		
I_R	Reverse Current	V_R=2V		100		µA
		V_R=5V		270		µA
P_e	Optical Output Power [1]	Ic=20mA		3,2		mW
		Ic=50mA		8		
λ_P	Peak Emission Wavelength	If=20mA	870	880	885	nm
$\Delta\lambda$	Spectral Half Width	If=20mA		27		nm
t_r	Rise Time	If=20mA		1		µs
t_f	Fall Time	If=20mA		1		µs

1 Measured with a integrating sphere.

MECHANICAL DIMENSIONS

Units=mm Mechanical tolerance=+/-0.2mm