

General Description

Standard quality IrGaAlAs IR LED with good parallel beam of light and very high optical output power.

Plastic lens allows parallel beam with a medium divergence of $\pm 10^\circ$.

The plastic case enclosure guarantees good quality and low price for this IR LED.

This LED is used in applications where high optical output power and low prices are required.



Applications

Optical Systems

Optical Barriers

Encoders

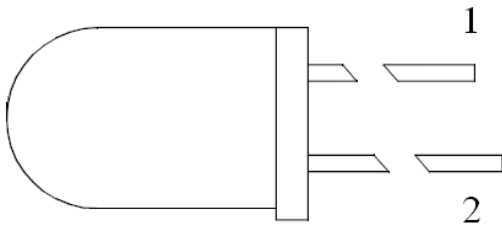
General Purpose

Features

- IrGaAlAs LED
- Parallel Light Beam
- Plastic Case Enclosure (\varnothing 5mm)
- Infrared Light Emitting at 940 nm

Pin Functions

No.	Name	Function
1	K	Cathode
2	A	Anode



Ordering Information

OIL20S10 IrGaAlAs IR Led in Plastic Case Emitting at 940 nm with a Medium Divergence of $\pm 10^\circ$

OIL20S10

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Min	Max	Unit
T_A	Operating Temperature Range	-30	80	°C
T_S	Storage Temperature	-30	80	°C
T_{Sol}	Lead Temperature (solder) 5s		260	°C
$I_{F(max)}$	Forward Current (DC)		100	mA
$V_{R(BR)}$	Reverse Voltage		5	V
I_{PEAK}	Pulse Current (duty cycle=0.001)		750	mA
P_D	Power Dissipation @ $T_A=25^\circ\text{C}$		100	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

$T_A = 25^\circ\text{C}$ unless otherwise noted.

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_F	Forward Voltage	$I_F=100\text{mA}$		1.4	1.7	V
I_R	Reverse Current	$V_R=5\text{V}$			10	μA
I_E	Radiant Intensity	$I_F=100\text{mA}$	80	120		mW/sr
λ_P	Peak Emission Wavelength	$I_F=50\text{mA}$		940		nm
$\Delta\lambda$	Spectral Bandwidth @ 50%	$I_F=50\text{mA}$		50		nm
θ	Half Width Beam Angle			± 10		deg

MECHANICAL DIMENSIONS

Units=mm Mechanical tolerance= $\pm 0.2\text{mm}$

