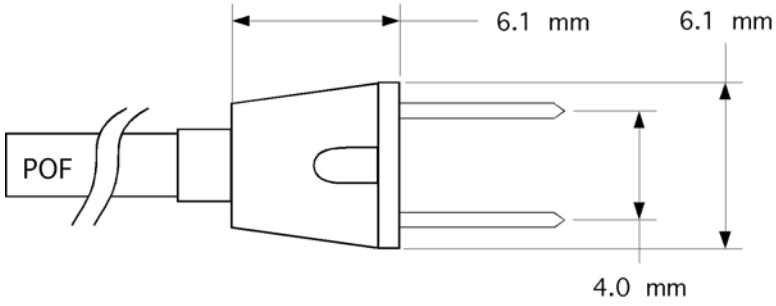
LED to 1mm POF coupled modules

Description:

The LED module bases on a microstructured parabolic reflector setup responsible for the high POF coupled optical power. The LED die is placed in the parabola's focus point. The reflector couples the light with high efficiency to a standard POF with 1mm core diameter and a numerical aperture of 0.5. Typically the POF cable jacket diameter is 2.2mm, other POF cable types (e.g. 1.25mm cable diameter) or bare fiber POF are available on request.
The polished POF endface emits the light in a light cone with a divergence of ±29° to the optical axis. The typical fiber length is 15cm, but customer specific length modifications are possible.
Electrically the POF module is connected by a 4 mm pitch two pin connector.
Customer specific LED dice can be mounted into the package if the die edge length doesn't exceed 340µm.

Mechanical dimensions:



Applications:

POF coupled LED modules are useful in a wide variety of applications:

- Object illumination at places with difficult access due to tiny space or other limitations
- Generation of high optical power area density for laboratory applications
- Light barrier setups

Technical specifications for some selected LED to POF coupled modules:

	blue	green	amber	orange-red	red	hyper-red
peak wavelength [nm]	460	520	590	615	640	650
typical optical output power @ 20mA [mW]	4.0	2.3	1.4	2.5	2.3	4.0

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2007-03-05