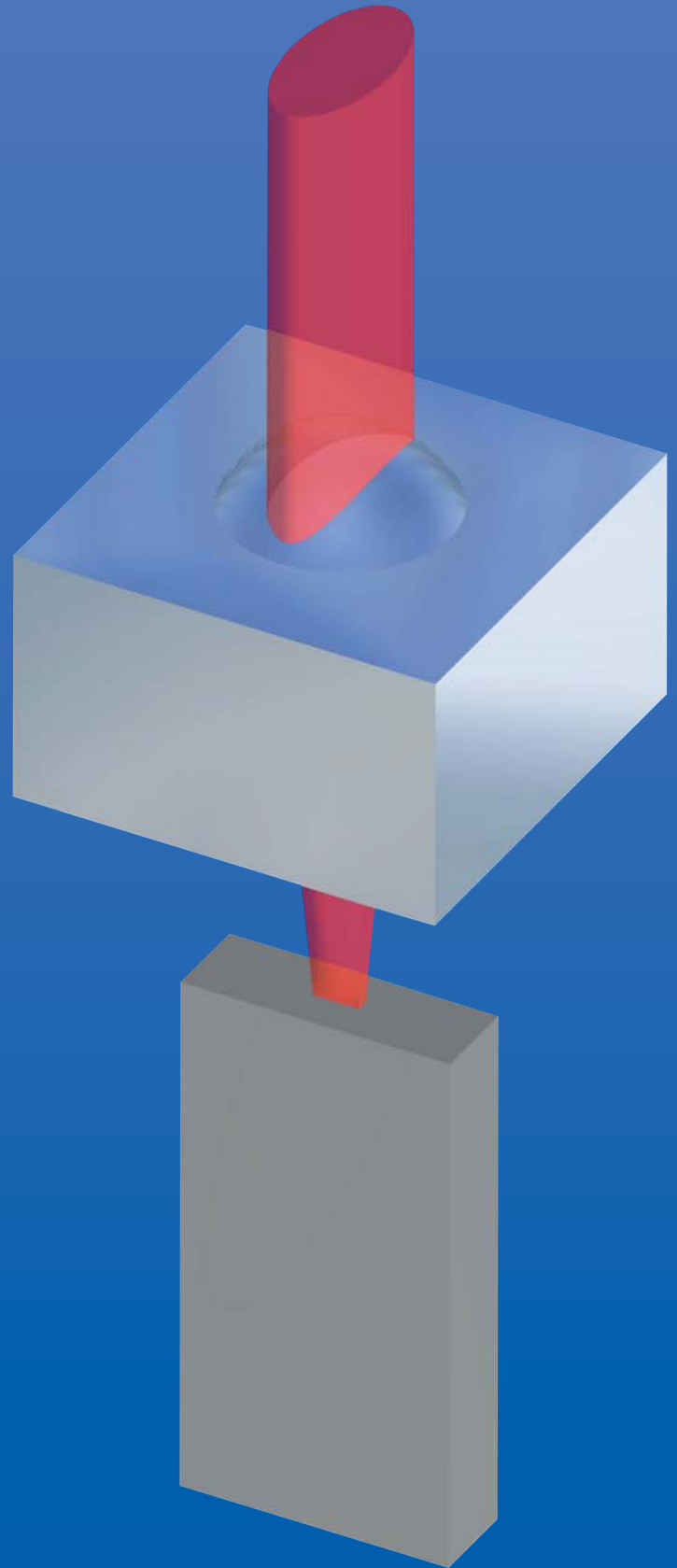
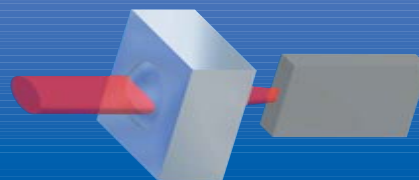


Fiber Optics

Laser Diode Collimating Lens





Fiber Optics

Laser Diode Collimating Lens

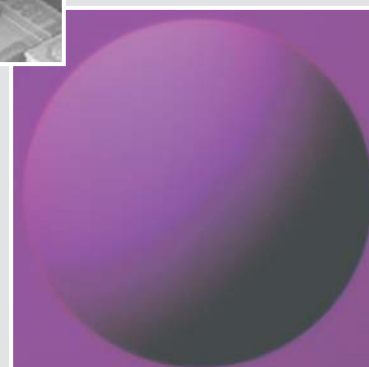
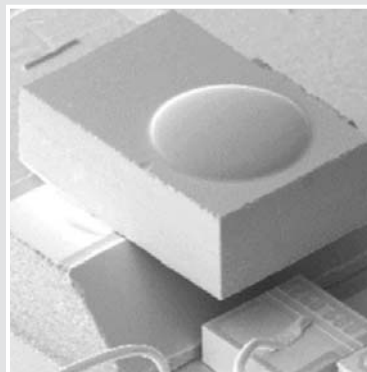
Microlens for collimating semiconductor laser diodes

Benefits

- High NA for optimum coupling
- Aspherical design
- High focal length repeatability
- High coupling efficiency due to optimized surface profile and very low roughness
- Small form factor enables very compact packages
- Silicon material Telcordia compliant
- 1280 nm to 1620 nm AR coating

Applications

- Collimation of edge emitting lasers for optical communication
- Collimation of long wavelength VCSELs



Customized microlenses and microlens arrays are available upon request, optimized for your specific mechanical dimensions, alignment marks, numerical aperture and working distance. AuSn pads for soldering assembly are an additional option.

LDC 500 Laser Diode Collimating Lens Preliminary Specifications

Lens surface profile	Refractive aspherical, $k = -2.5$	
Lens aperture diameter	480 μm	Other diameters possible.
Lens numerical aperture	0.7	Other NA available.
Laser divergence	$\leq 35^\circ$ ($1/e^2$ half angle)	
Working distance	100 μm to 300 μm	Custom designs available on request
Wavelength range	$\lambda > 1.1 \mu\text{m}$	
AR coating	$R < 0.5\%$ per side, $\lambda = 1280 - 1620 \text{ nm}$	
Surface Roughness	$R_a < 5 \text{ nm}$	
Mechanical dimensions	0.94 \pm 0.02 mm x 0.94 \pm 0.02 mm x 0.38 \pm 0.025 mm (length x width x thickness)	Other dimensions upon request.
Mounting aids	Optionally metallized AuSn soldering pads	
Material	Silicon	



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