

Automotive

Datasheet Plastic Collimator Lens CAX183

These data concern a full plastic aspherical plano-convex lens. It is specified for use as a collimator in combination with a diode laser. It can be mounted by use of glue or spring-loaded. Mechanical lock-mounting is not advisable because of possible distortions.

Parameters	Wavelength		Unit
	670 nm	785 nm	
Design conditions			
<i>N.A.</i>	0.12		--
Clear Aperture <i>CA</i>	4.3		mm
Designed with laser cover glass (<i>BK7</i>) on source side:			
Distance from source	0.55		mm
Glass thickness	0.25		mm
Optical parameters			
Focal Length	18.15	18.33	mm
Back Focal Length <i>BFL</i> (with 0.25mm laserglass)	17.51	17.69	mm
Free Working Distance <i>FWD</i>	16.30	16.48	mm
<i>RMS</i> mean	25		mλ
	on axis		mλ
	total		mλ
<i>RMS</i> max. ($\pm 3\sigma$)	30		mλ
	on axis		mλ
	total		mλ
Optical Tolerance	0.1		mm
Field Radius	0.3		mm
Mechanical parameters			
Mounting hole diameter D_{mh}	Ø 6.28		mm
Other parameters: see drawing			
Environmental stability			
Storage Temperature	-25 to 100		°C
Operating Temperature	-10 to 75		°C

General Data:
 Transmission [%]: 90
 Lens Material: Polycarbonate

Specifications subject to change without notice.
 Zemax cataloguefile available.

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