Fiber Coupler

Monolithic solution for Infrared applications

Features and Advantages

Monolithic fiber coupler for the efficient coupling of broad area emitters into optical fibers.

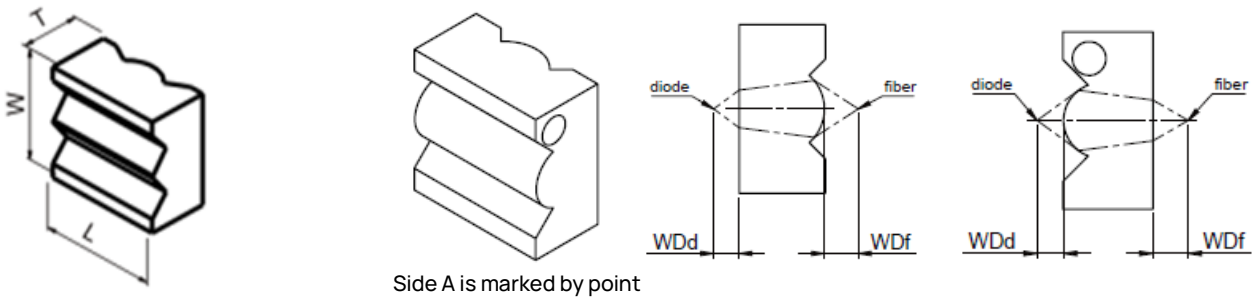
(*) Product similar to image, see product drawing below.

Product Specifications

Product Code		**ZLE000432**[1]
Specification Data	**Unit**	**Value**
Material		S-TIH53 (Ohara)
Length (L)	mm	2.0 ± 0.05
Width (W)	mm	2.0 ± 0.05
Thickness (T)	mm	1.02 ± 0.02
Clear Aperture (A_l x A_w)	mm²	0.75 x 0.75
Numerical Aperture (NA)[2]		FA:0.6; SA:0.1
Refractive Index @ 808 nm		1.823
Distance Emitter Facet to Coupler (WD_d)	mm	0.05
Distance Coupler to Fiber (WD_f)	mm	0.27
Effective Focal Length (EFL) @ 808 nm	mm	FA: 0.05; SA: 0.24
AR Coating	nm	790 - 990
Transmission	%	> 99
Typical Coupling Efficiencies (for AR Coated Fibers)		
Emitter Width ≤100 µm, NA 0.1; Fiber Diameter 50 µm, NA 0.22	%	> 75
Emitter Width ≤100 µm, NA 0.1; Fiber Diameter 100 µm, NA 0.22	%	> 90
Emitter Width ≤200 µm, NA 0.1; Fiber Diameter 100 µm, NA 0.37	%	> 90
Emitter Width ≤200 µm, NA 0.1; Fiber Diameter 200 µm, NA 0.37	%	> 90
Surface Imperfections (DIN ISO)	10110-7	5/ 8x0.01; C5x0.063; L2x0.016; E0.2

[1] Example for customization — customized coating and design on request.
[2] For an emitter width of 100 µm.

Product Drawing



Side A is marked by point

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