

## SQF-SERIES

Pulsed Laser Diodes with Homogenized Beam



### FEATURES

- / Homogenized beam
- / 905 nm
- / Excellent temperature stability
- / Proven InGaAs/GaAs high reliability structure
- / Custom versions available
- / Hermetic and custom designed package

### APPLICATIONS

- / Range finding
- / Surveying equipment
- / Laser radar
- / Medical
- / »Friend or foe« identification
- / Security barrier
- / Weapon simulation

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## SPECIFICATIONS

### Generic Characteristics at $t_{RT} = 21\text{ °C}$ and $I_{FM}$

	Min	Typ	Max
Wavelength of peak radiant intensity $\lambda$ [nm]	895	905	915
Spectral bandwidth $\Delta\lambda$ at 50% intensity points [nm]		5	
Wavelength temperature coefficient [nm/°C]		0.28	

### Multi Junction Chip

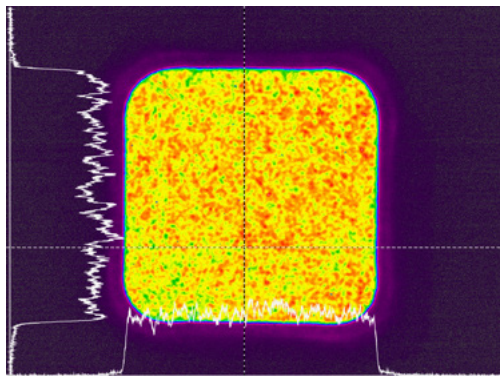
Single chip characteristics at  $t_{RT} = 21\text{ °C}$ ,  $t_W = 150\text{ ns}$ ,  $P_{rr} = 6.66\text{ kHz}$

Parameter	905D1S3JT06SQF-14-15
Integrated pulsed laser diode	905D1S3JT06R
$P_o$ ex fiber at $i_{FM}$ (typ.) [W]	30
Emitting area [ $\mu\text{m}^2$ ]	140x140
Divergence NA	0.27
Max peak forward current $i_{FM}$ [A]	22
$I_{th}$ (typ.) [mA]	600
Forward voltage at $I_{max}$ [V]	11.8

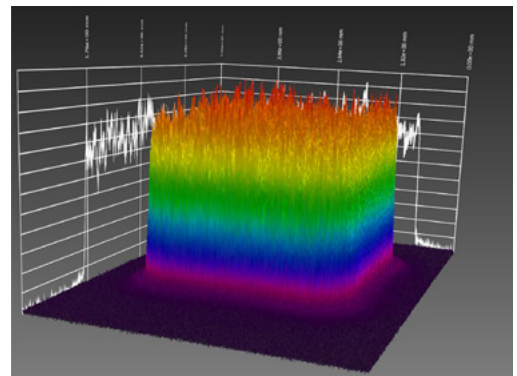
### Absolute Maximum Ratings

Maximum Ratings	Limiting Values
Peak reverse voltage [V]	36
Pulse duration [ns]	150
Duty factor [%]	0.1
Temperature [°C] Storage Operating	-55 to +85 -40 to +85
Lead soldering [°C] 5 seconds max at	200

Note: Further specifications are available on the individual datasheets of the integrated pulsed laser diode.



Typical near field emission (2D view)



Typical near field emission uniformity (3D view)

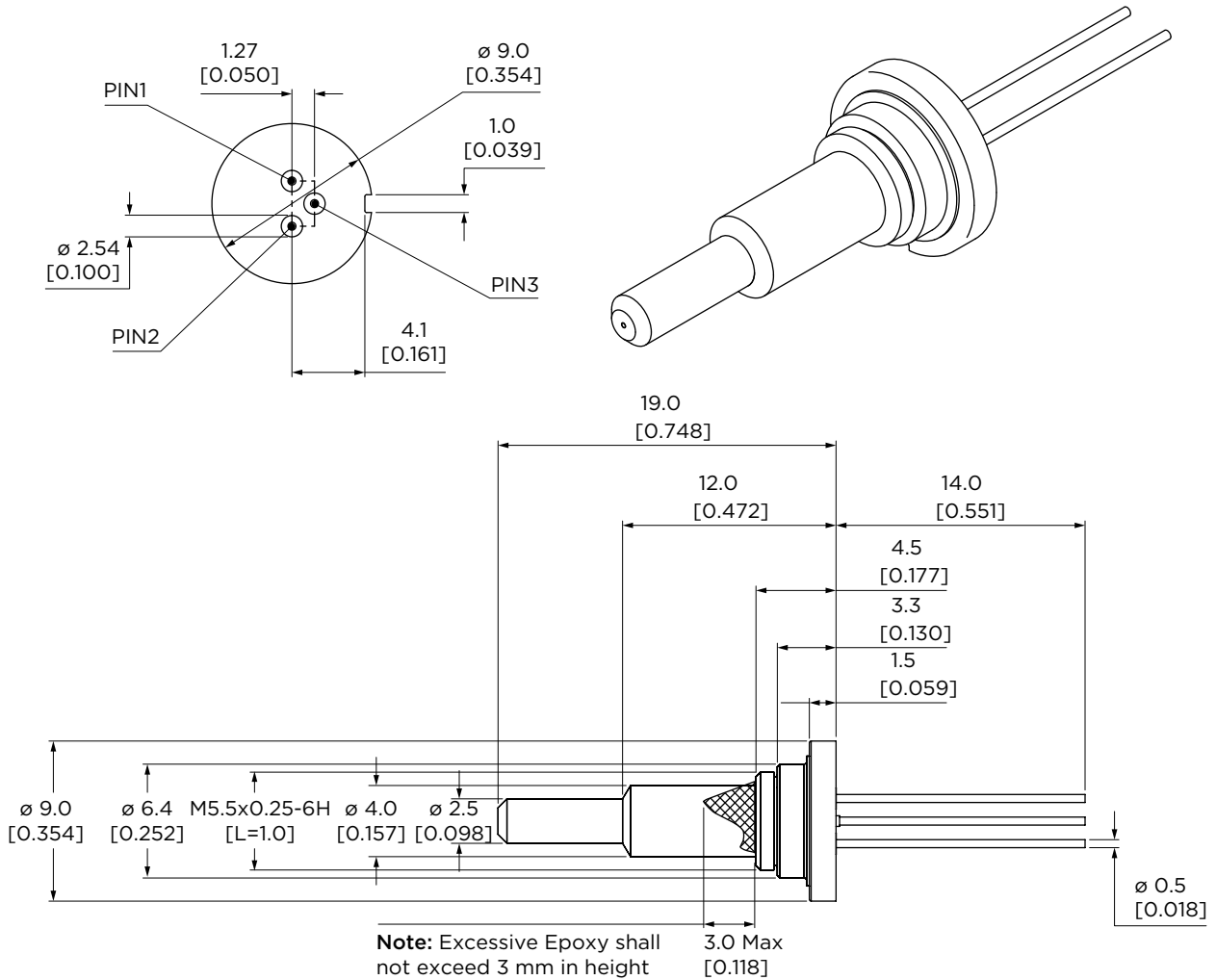
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## TECHNICAL DRAWING

Package SQF-Series, 15 mm homogenizer



### Package SQF

Pin out:

1. LD Anode (+)
2. NC
3. LD Cathode (-) Case

Units: mm [inch]

Dimensions are in millimeters - [inches] and are for reference only.

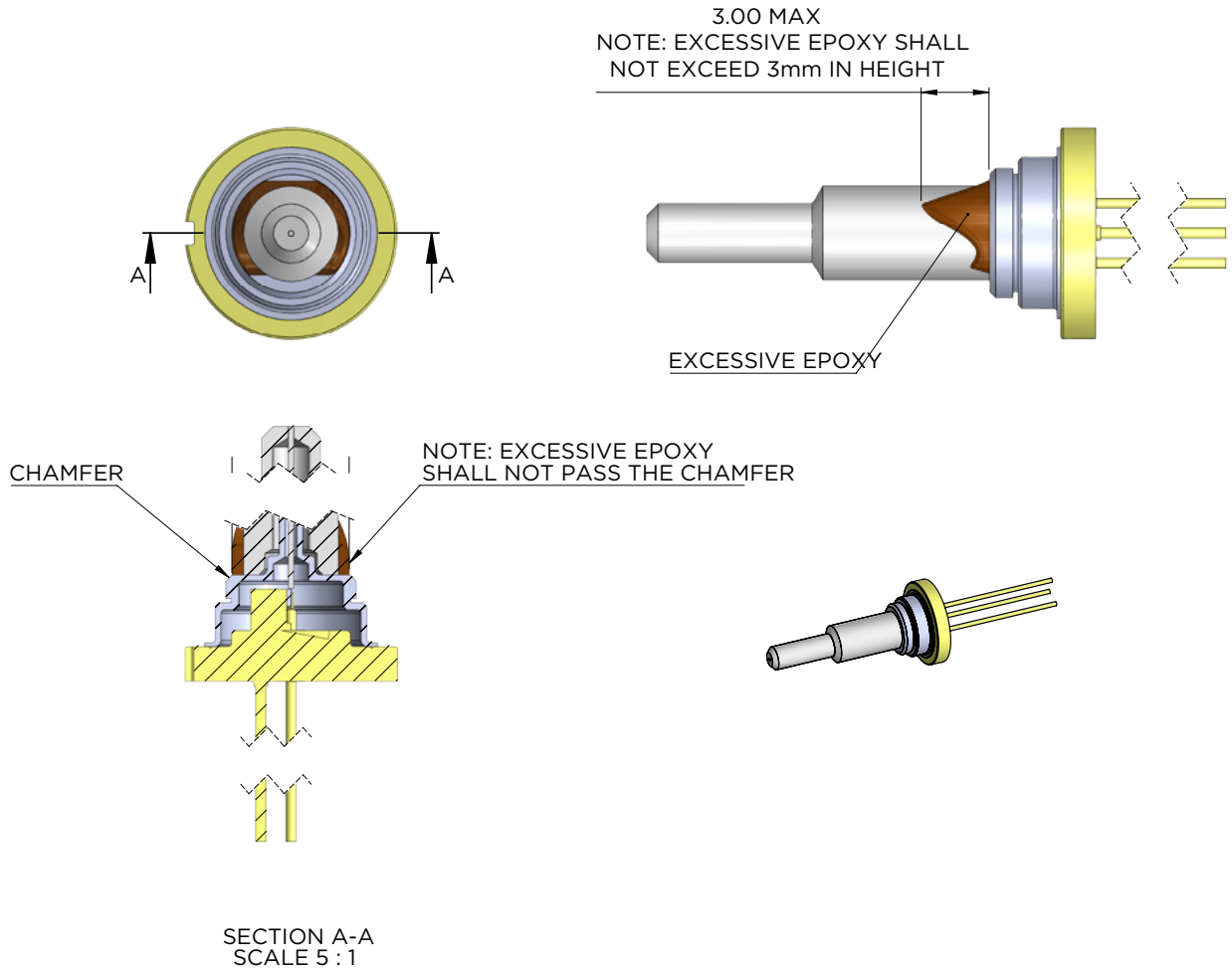
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## TECHNICAL DRAWING



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## ORDERING CODE

	Diode Configuration	Emitter Size [ $\mu\text{m}$ ]		Emitting Area [ $\mu\text{m}$ ]		Homogenizer Length [mm]
<b>905D</b>	<b>1S</b> Single Stack	<b>3JT06</b> 106 x 10	<b>SQF</b>	<b>14</b> 140 x 140		<b>15</b>

## PRODUCT CHANGES

LASER COMPONENTS reserves the right to make changes to the product(s) or information contained herein without notice. No liability is assumed as a result of their use or application.

## ORDERING INFORMATION

Products can be ordered directly from LASER COMPONENTS or its representatives.  
For a complete listing of representatives, visit our website at [www.lasercomponents.com](http://www.lasercomponents.com)  
Custom designed products are available on request.

## LASER SAFETY

### Personal Hazard

Depending on the mode of operation, these devices emit highly concentrated non visible infrared light which can be hazardous to the human eye. Products which incorporate these devices have to follow the safety precautions given in IEC 60825-1 »Safety of laser products«.

### Handling Precautions

Products are subject to the risks normally associated with sensitive electronic devices including static discharge, transients, and overload.



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