

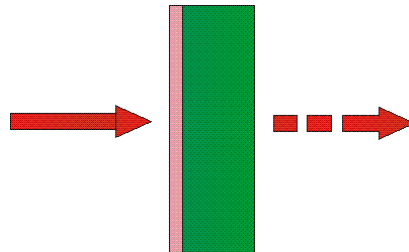
# SA – Saturable Absorber

## Product Overview

- Saturable absorber for use in transmission applications
- For passive mode-locking of solid state, ring or fiber ring lasers

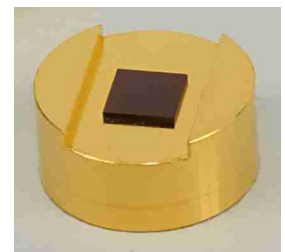
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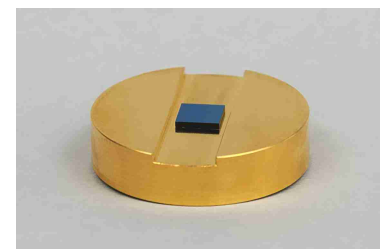


<b>SA 1020</b>	Laser wavelength Absorptance Relaxation time Saturation fluence	$\lambda = 980 \text{ nm} - 1040 \text{ nm}$ $A_0 = 40 \%$ $\tau \sim 500 \text{ fs}$ $\Phi_{\text{sat}} = 300 \mu\text{J}/\text{cm}^2$
<b>SA 1064</b>	Laser wavelength Absorptance Relaxation time Saturation fluence	$\lambda = 1030 \text{ nm} - 1090 \text{ nm}$ $A_0 = 14 - 40 \%$ $\tau \sim 500 \text{ fs} - 37 \text{ ps}$ $\Phi_{\text{sat}} = 300 \mu\text{J}/\text{cm}^2$
<b>SA 1550</b>	Laser wavelength Absorptance Relaxation time Saturation fluence	$\lambda = 1400 \text{ nm} - 1600 \text{ nm}$ $A_0 = 6 - 58 \%$ $\tau \sim 2 - 20 \text{ ps}$ $\Phi_{\text{sat}} = 300 \mu\text{J}/\text{cm}^2$
<b>SA 2000</b>	Laser wavelength Absorptance Relaxation time Saturation fluence	$\lambda = 1900 \text{ nm} - 2100 \text{ nm}$ $A_0 = 1 - 43 \%$ $\tau \sim 10 \text{ ps}$ $\Phi_{\text{sat}} = 300 \mu\text{J}/\text{cm}^2$
<b>SA 2800</b>	Laser wavelength Absorptance Relaxation time Saturation fluence	$\lambda = 2500 \text{ nm} - 3000 \text{ nm}$ $A_0 = 10 \%$ $\tau \sim 10 \text{ ps}$ $\Phi_{\text{sat}} = 300 \mu\text{J}/\text{cm}^2$

## Mounting Options



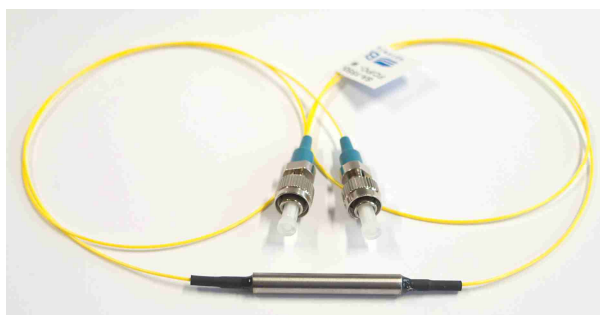
12.7 mm  $\varnothing$  - Cu-Mount with  
 $\varnothing$  4 mm hole



25.0 mm  $\varnothing$  - Cu-Mount with  
 $\varnothing$  4 mm hole



Backside of 25.0 mm  $\varnothing$  - Cu-Mount  
with  $\varnothing$  4 mm hole

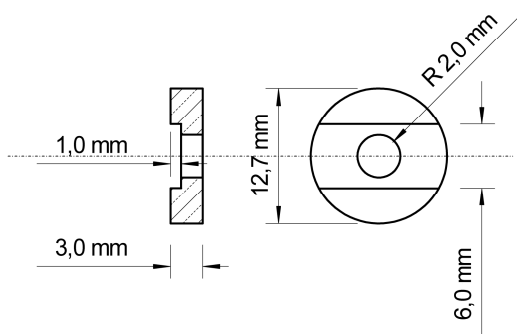


Fiber coupled SA

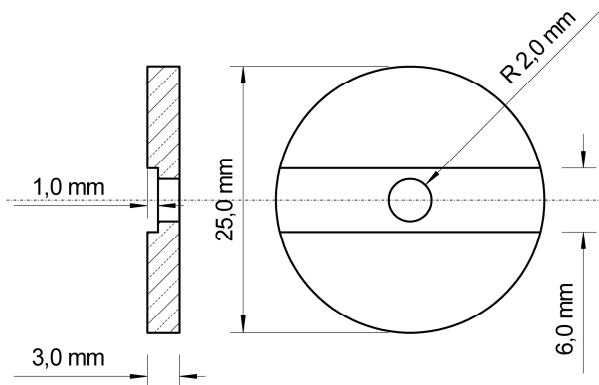
Other wavelengths and parameters on request.

- Chip area: 5 mm x 5 mm  
 Chip thickness: 625  $\mu\text{m}$  semi – insulating GaAs, other thickness on request  
 Front side protection: AR coating  
 Back side: Polished and AR coated  
 Mounting:
  - Unmounted
  - Glued on:
    - 12.7 mm  $\varnothing$  Cu-mount with  $\varnothing$  4 mm hole
    - 25.0 mm  $\varnothing$  Cu-mount with  $\varnothing$  4 mm hole
  - Fiber coupled (SMF, PM)
  - Mounting on custom mounts on request

Cu-Mount  $\varnothing$  12.7 mm with  $\varnothing$  4 mm hole:

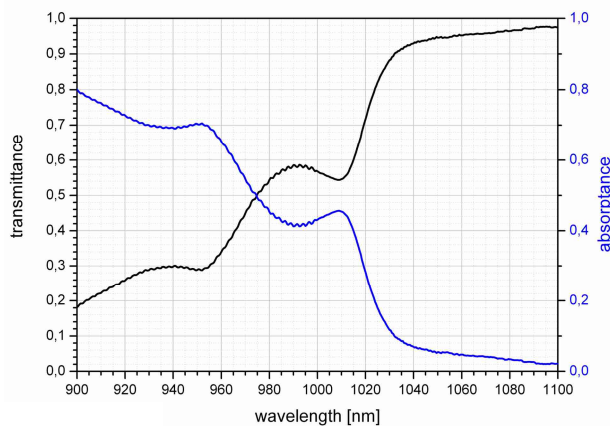


Cu-Mount  $\varnothing$  25.0 mm with  $\varnothing$  4 mm hole:

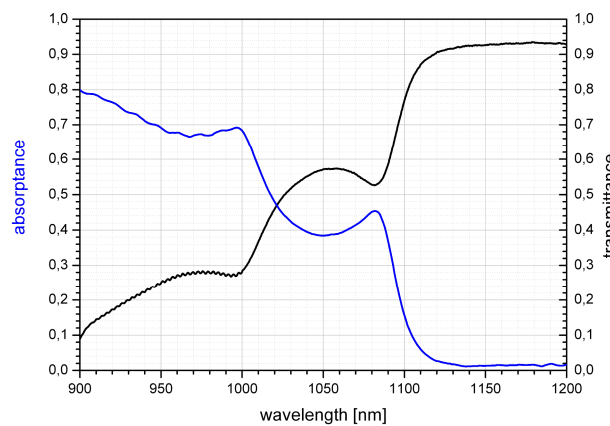


### Spectral transmission / absorption:

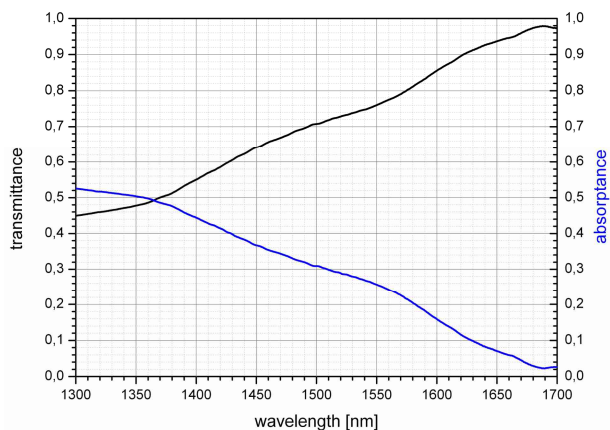
**SA 1020-40-X**



**SA 1064-40-X**



**SA 1550-25-X**



**SA 2000-25-X**

