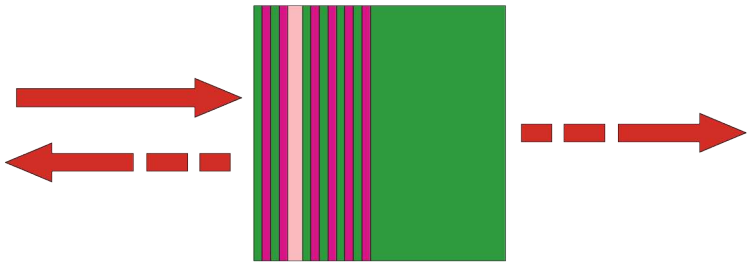
RSA – Resonant Saturable Absorber

Product Overview

- Resonant saturable absorber in transmission mode for passive mode-locking of fiber ring lasers



Device Characteristic

- low reflectance at resonance for low intensity
- low transmittance for all wavelengths outside the resonance
- increasing transmittance with increasing pulse fluence
- low saturation fluence

Advantages

- low power threshold for start of mode-locking
- laser wavelength fixed at the resonance

RSA 1060	Resonance wavelength	λ = 1057 nm
	Low intensity absorptance	A = 53 %
	Low intensity transmittance	T = 45 %
	Low intensity reflectance	R < 2 %
	Saturation fluence	Φ_{sat} = 25 µJ/cm^2
	Relaxation time	τ = 6 ps

For other wavelengths and parameters please ask!

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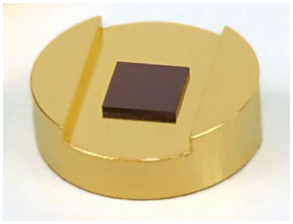
Mounting Options



12.7 mm ∅ - Cu-Mount with ∅ 4 mm hole

25.0 mm ∅ - Cu-Mount with ∅ 4 mm hole

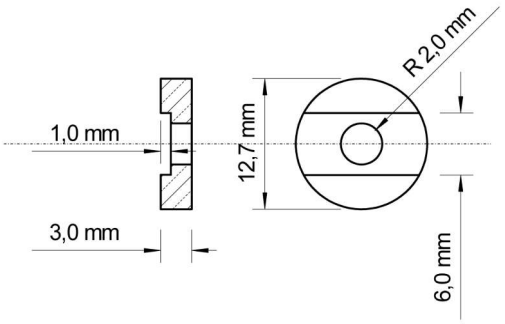
Backside of 25.0 mm ∅ - Cu-Mount with ∅ 4 mm hole

Fiber coupled RSA

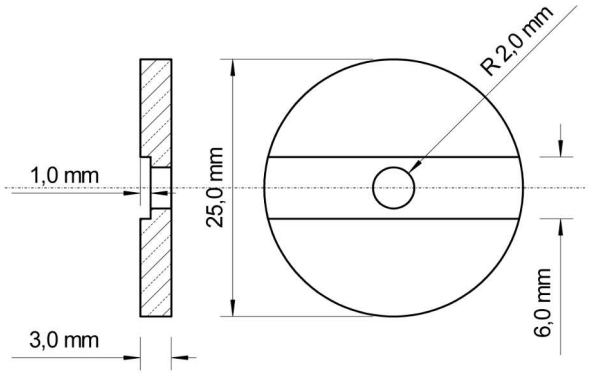
Chip area:	5 mm x 5 mm
Chip thickness:	625 µm semi – insulating GaAs
Front side protection:	AR coating
Back side:	Polished and AR coated

Mounting:	▪ Unmounted
	▪ Glued on:
	  ▪ 12.7 mm ∅ Cu-mount with ∅ 4 mm hole
	  ▪ 25.0 mm ∅ Cu-mount with ∅ 4 mm hole
	▪ Fiber coupled (SMF, PMF)
	▪ Mounting on custom mounts on request

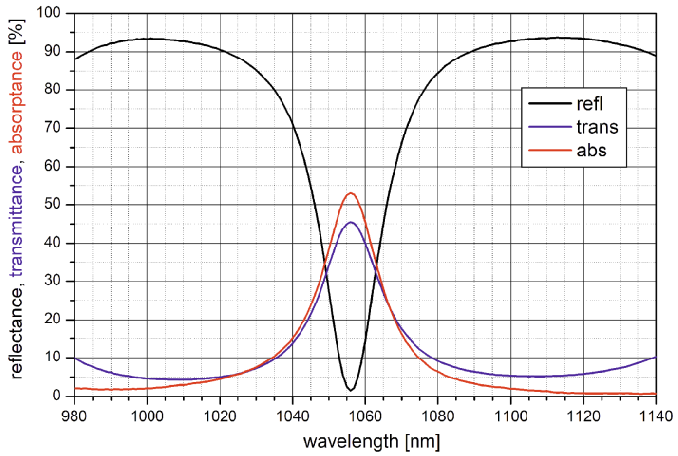
Cu-Mount ∅ 12.7 mm with ∅ 4 mm hole:



Cu-Mount ∅ 25.0 mm with ∅ 4 mm hole:



Spectral reflectance / transmittance / absorptance RSA-1057-53-45-6ps-x:



Saturation curves: