



SOC – Saturable Output Coupler

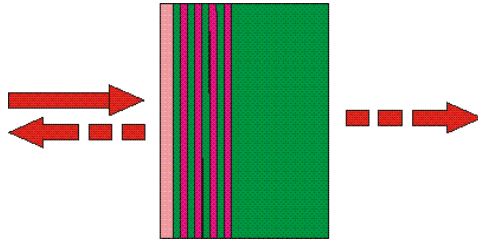
Product Overview



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- For passive mode-locking of solid state lasers and use as laser output element

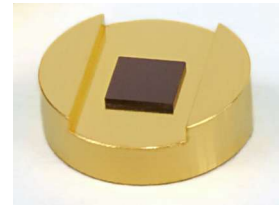


SOC 1040	Laser wavelength	$\lambda = 1020 - 1080 \text{ nm}$
	Absorptance	$A_0 = 0.5 - 24 \%$
	Modulation depth	$\Delta R = 0.3 - 9.5 \%$
	Transmittance	$T = 0.4 - 19 \%$
	Relaxation time	$\tau = 1 - 15 \text{ ps}$
	Saturation fluence	$\Phi_{\text{sat}} = 40 - 90 \mu\text{J}/\text{cm}^2$

SOC 1064	Laser wavelength	$\lambda = 1040 - 1100 \text{ nm}$
	Absorptance	$A_0 = 1 - 22 \%$
	Modulation depth	$\Delta R = 0.6 - 9.5 \%$
	Transmittance	$T = 0.3 - 23 \%$
	Relaxation time	$\tau = 1 - 20 \text{ ps}$
	Saturation fluence	$\Phi_{\text{sat}} = 40 - 500 \mu\text{J}/\text{cm}^2$

SOC 2000	Laser wavelength	$\lambda = 1950 - 2050 \text{ nm}$
	Absorptance	$A_0 = 26 - 40 \%$
	Modulation depth	$\Delta R = 15 - 23 \%$
	Transmittance	$T = 19 - 28 \%$
	Relaxation time	$\tau \sim 10 \text{ ps}$
	Saturation fluence	$\Phi_{\text{sat}} = 70 - 80 \mu\text{J}/\text{cm}^2$

Mounting Options



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



25.0 mm / 25.4 mm \varnothing - Cu-Mount with \varnothing 4 mm hole



Backside of 25.0 mm / 25.4 mm \varnothing - Cu-Mount with \varnothing 4 mm hole



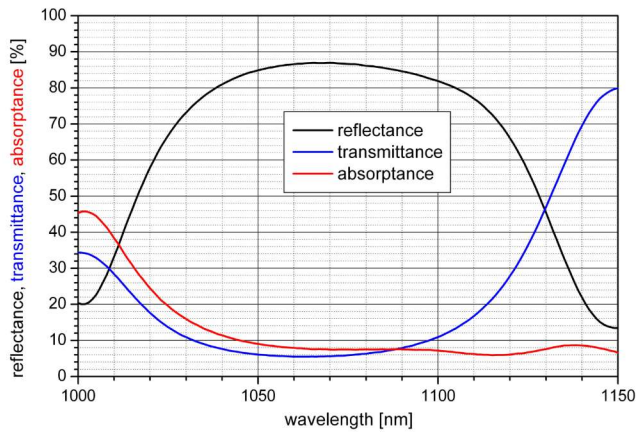
Fiber coupled SOC

For other wavelengths and parameters please ask!

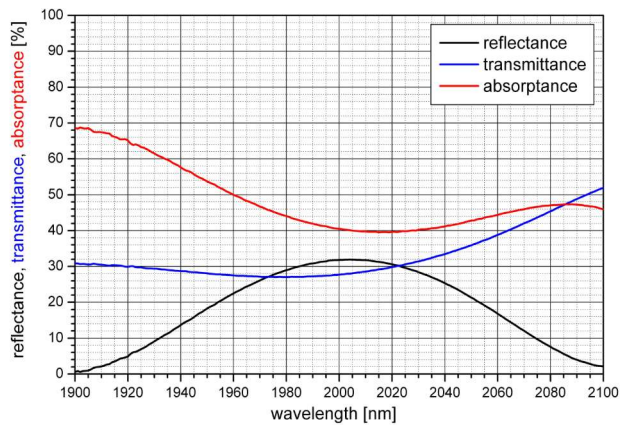
- Chip area: 5 mm x 5 mm
- Chip thickness: 625 μm , semi – insulating GaAs
- Front side coating: Dielectric protection layer
- Back side: Polished and AR coated
- Mounting:
- Unmounted
 - Glued on:
 - 12.7 mm \varnothing Cu-mount with \varnothing 4 mm hole
 - 25.0 mm \varnothing Cu-mount with \varnothing 4 mm hole
 - 25.4 mm \varnothing Cu-mount with \varnothing 4 mm hole
 - Fiber coupled (SMF, PMF)
 - Mounting on custom mounts on request

Spectral reflection / transmission:

SOC-1064-8-6-1ps-X



SOC-2000-40-28-10ps-X



Notes: