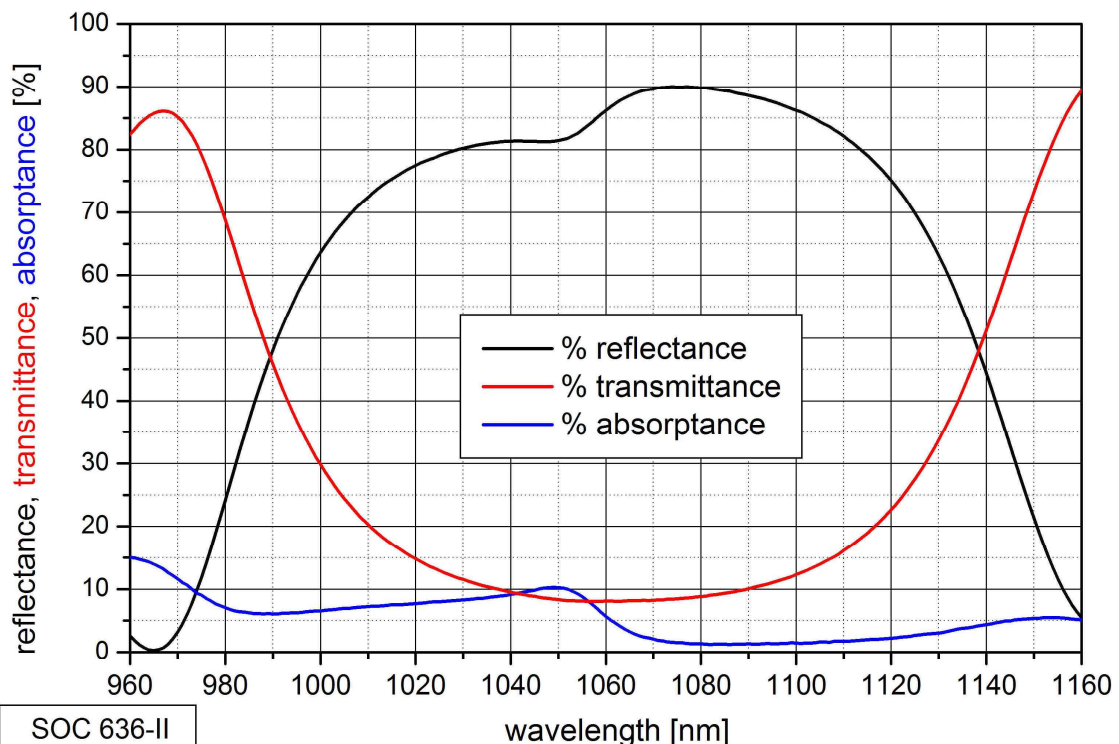


SOC data sheet SOC-1040-9-9-1ps-x, $\lambda = 1040 \text{ nm}$

Laser wavelength	$\lambda = 1040 \text{ nm}$
Absorptance	$A_0 = 9 \%$
Transmittance	$T = 9 \%$
Reflectance	$R = 82 \%$
Modulation depth	$\Delta R = 5 \%$
Non-saturable loss	$A_{ns} = 4 \%$
Saturation fluence	$\Phi_{sat} = 90 \mu\text{J}/\text{cm}^2$
Relaxation time constant	$\tau \sim 1 \text{ ps}$
Chip area	5.0 mm x 5.0 mm; other dimensions on request
Chip thickness	625 μm ; semi-insulating GaAs
Front side protection	with a dielectric layer
Back side AR coating	the SOC back side is polished and antireflection coated for 1040 nm
Mounting option x denotes the type of mounting as follows:	

x = 0	unmounted
x = 12.7 g	glued on a gilded Cu-cylinder with 12.7 mm \varnothing and 4 mm \varnothing center hole
x = 25.0 g	glued on a gilded Cu-cylinder with 25. mm \varnothing and 4 mm \varnothing center hole
x = 25.4 g	glued on a gilded Cu-cylinder with 25.4 mm \varnothing and 4 mm \varnothing center hole
x = FC	mounted on a 1 m single mode fiber cable with FC connector

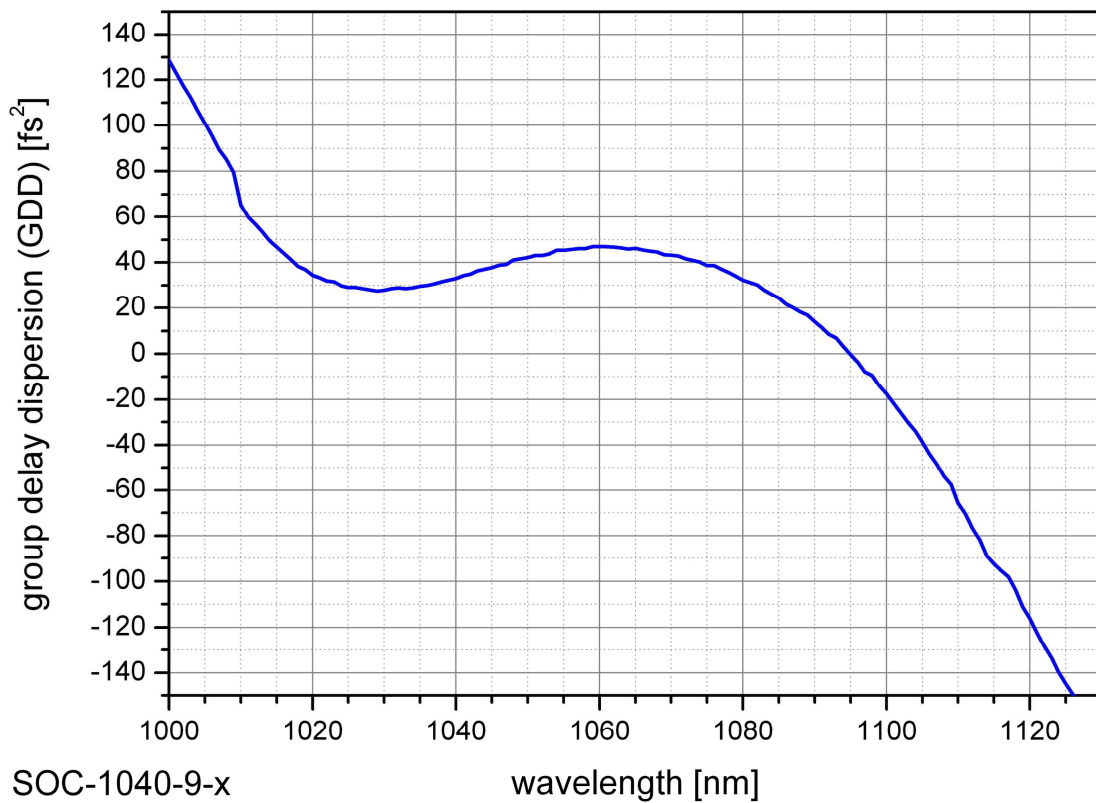
Spectral reflectance, **transmittance** and **absorptance**



Group Delay Dispersion (GDD)

Dispersion coefficient $D_2(\omega) = \frac{\partial^2 \varphi}{\partial \omega^2}$ with φ - reflected phase

$$\omega = 2\pi \frac{c}{\lambda} \text{ - angular frequency}$$



SOC-1040-9-x

wavelength [nm]