

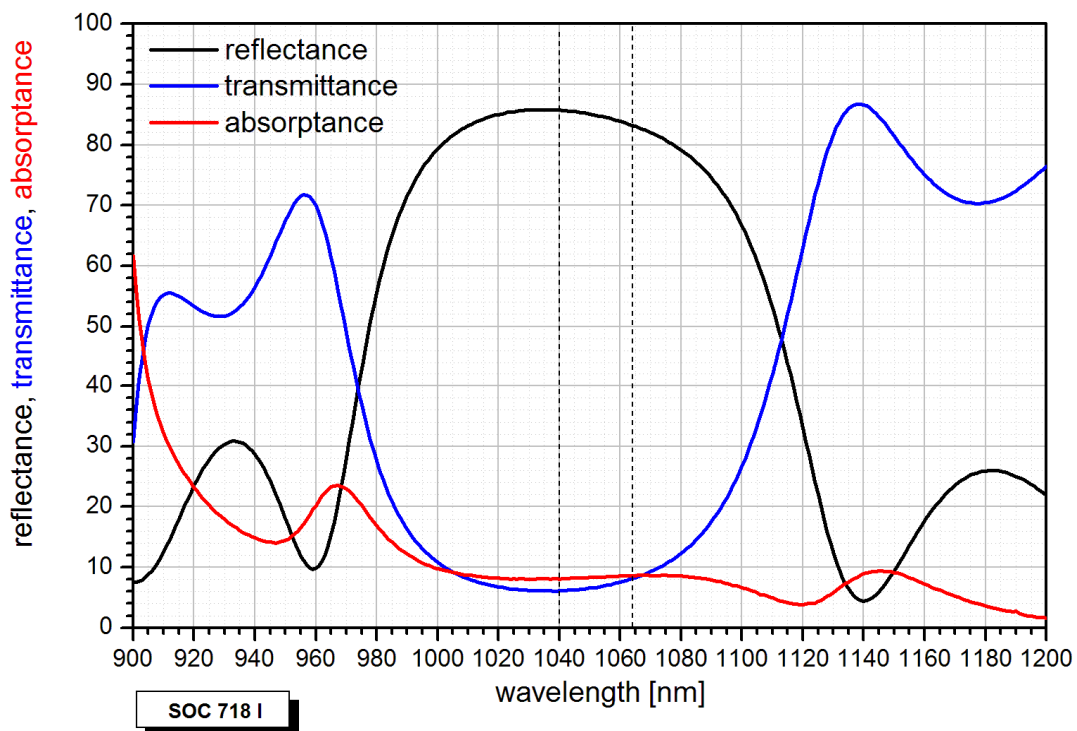
SOC (saturable output coupler) data sheet SOC-1040-8-6-15ps, $\lambda = 1040$ nm

Laser wavelength	$\lambda = 1040$ nm
Transmittance	$T = 6$ %
Reflectance	$R = 84$ %
Absorptance	$A_0 = 8$ %
Modulation depth	$\Delta R = 4,5$ %
Non-saturable loss	$A_{ns} = 3,2$ %
Saturation fluence	$\Phi_{sat} = 70$ $\mu\text{J}/\text{cm}^2$
Damage threshold	$\Phi_{dam} = 5$ mJ/cm^2
Relaxation time constant	$\tau \sim 15$ 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 broadband -antireflection coated for 1050 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



Pump-probe measurement of relaxation time

