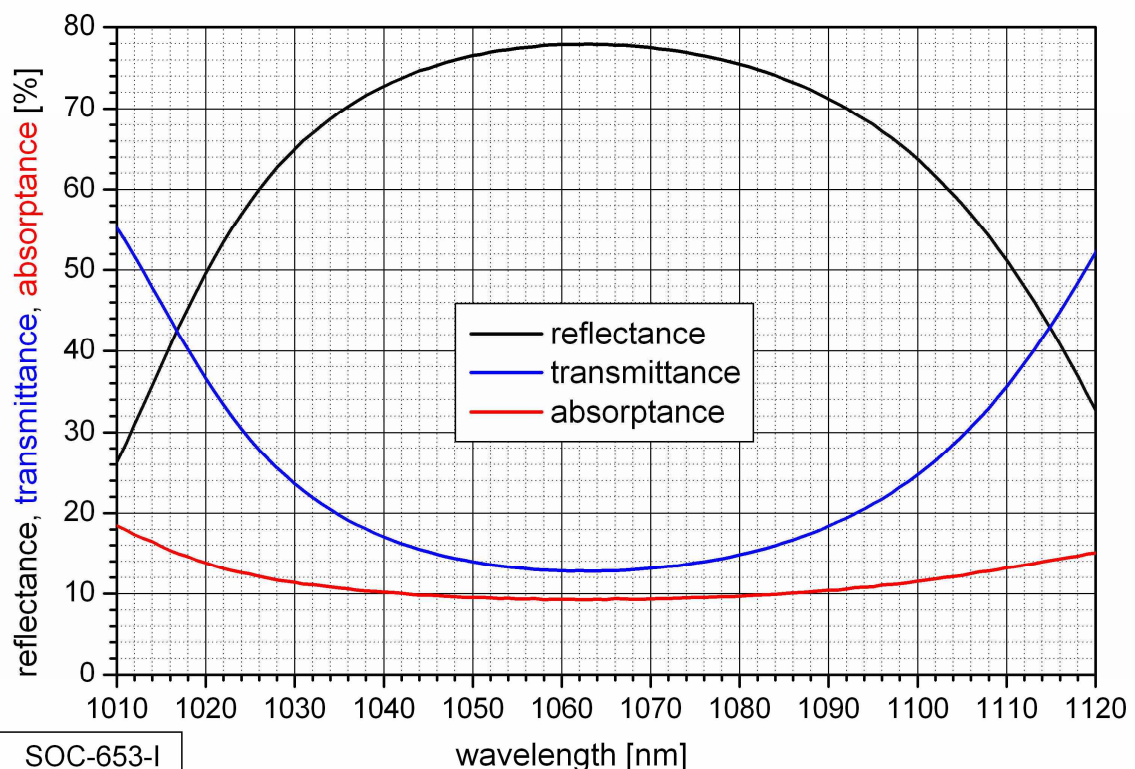


### SOC data sheet SOC-1064-9-13-17ps-x, $\lambda = 1064 \text{ nm}$

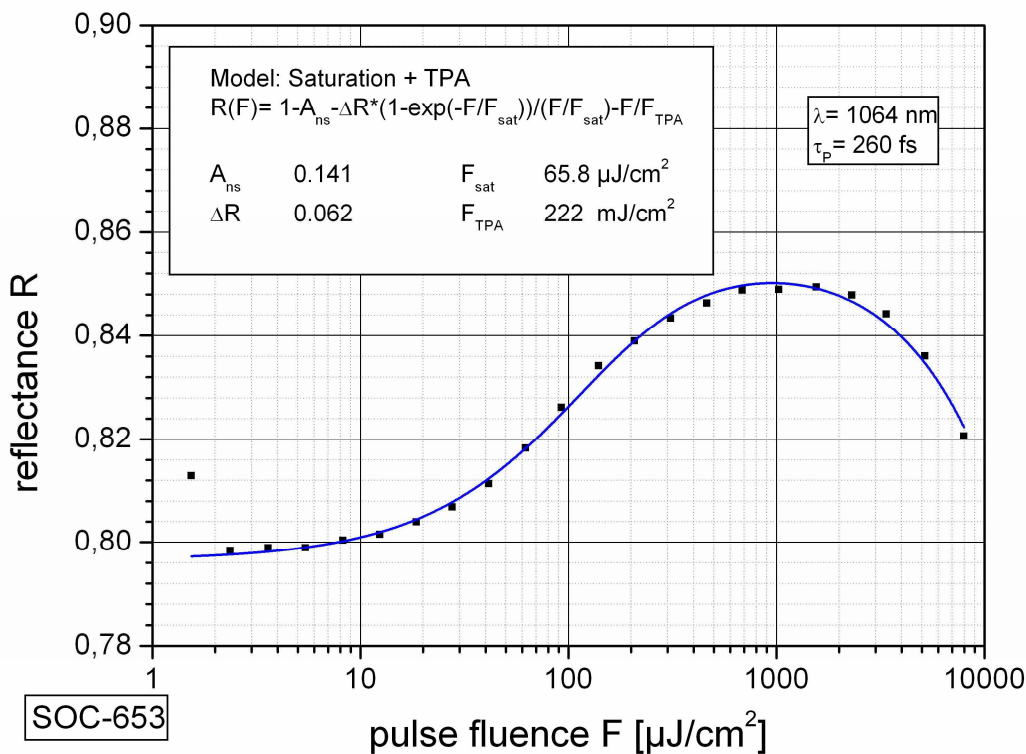
Laser wavelength	$\lambda = 1064 \text{ nm}$
Absorptance	$A_0 = 9 \%$
Transmittance	$T = 13 \%$
Reflectance	$R = 78 \%$
Modulation depth	$\Delta R = 6 \%$
Non-saturable loss	$A_{ns} = 5 \%$
Saturation fluence	$\Phi_{sat} = 66 \mu\text{J}/\text{cm}^2$
Relaxation time constant	$\tau \sim 17 \text{ ps}$
Chip area	5.0 mm x 5.0 mm; other dimensions on request
Chip thickness	625 $\mu\text{m}$ ; semi-insulating GaAs
Front side protection	with a dielectric layer
Back side AR coating	the SOC back side is polished and antireflection coated for 1064 nm
Mounting option <b>x</b> 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



reflectance saturation measurement



pump-probe measurement of relaxation time

