

### SA data sheet SA-1020-40-x, $\lambda = 1020$ nm

Laser wavelength	$\lambda = 980$ nm ... 1040 nm
Absorptance	$A_0 = 40$ %
Modulation depth	$\Delta T = 25$ %
Non-saturable loss	$A_{ns} = 15$ %
Saturation fluence	$\Phi_{sat} = 300$ $\mu\text{J}/\text{cm}^2$
Damage threshold	$P/A = 100$ $\text{MW}/\text{cm}^2$
Relaxation time constant	$\tau \sim 500$ fs
Chip area	5mm x 5mm; other dimensions on request
Chip thickness	625 $\mu\text{m}$ ; semi-insulating GaAs
Front side protection	AR coating for 1020 nm
Back side coating	the SA back side is polished and antireflection coated for 1020 nm
Mounting of SA-1020-40-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 = 25.4 g	glued on a gilded Cu-cylinder with 25.4 mm $\varnothing$ and 4 mm $\varnothing$ center hole
x = FC	a back-thinned SA chip with 90 $\mu\text{m}$ thickness is mounted inside a 1 m monomode fiber cable

### Spectral low intensity transmittance and absorptance

