

## SOC data sheet SOC-2000-26-24-10ps-x-thin, $\lambda = 2000$ nm thin saturable output coupler for fiber coupling

Laser wavelength	$\lambda = 2000$ nm
Absorptance	$A_0 = 26$ %
Transmittance	$T = 24$ %
Reflectance	$R = 50$ %
Modulation depth	$\Delta R = 15$ %
Non-saturable loss	$A_{ns} = 11$ %
Saturation fluence	$\Phi_{sat} = 70$ $\mu\text{J}/\text{cm}^2$
Relaxation time constant	$\tau \sim 10$ ps
Damage threshold	$\Phi \sim 1.5$ $\text{mJ}/\text{cm}^2$
Chip area	1.3 mm x 1.3 mm or 1.0 mm x 1.0 mm
Chip thickness	140 $\mu\text{m}$ ; semi-insulating GaAs
Front side protection	with a dielectric layer
Back side AR coating	antireflection coated for 2000 nm against fused silica ( $n = 1.45$ )

Mounting option **x** denotes the type of mounting as follows:

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

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

