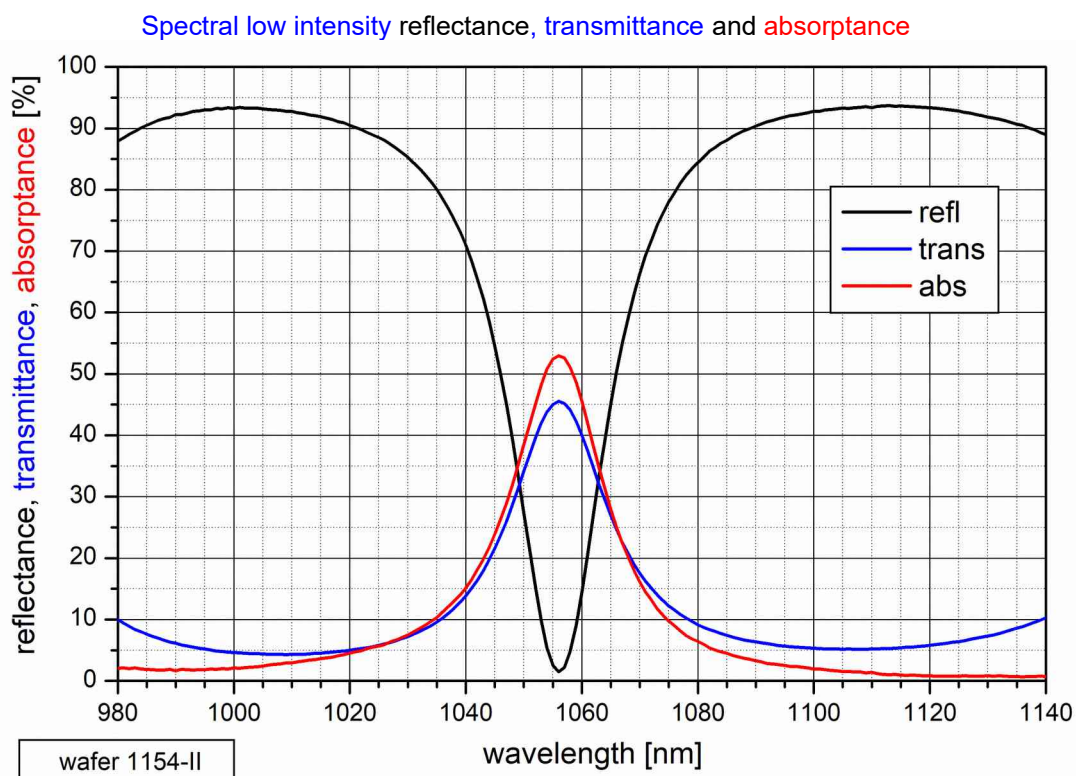


**Data sheet RSA-1057-53-45-6ps-x,  $\lambda \sim 1057$  nm**  
**RSA – Resonant Saturable Absorber in transmission**

Resonance wavelength	$\lambda = 1056..1060$ nm
Absorptance	$A_0 = 53$ %
Transmittance	$T_0 = 45$ %
Reflectance	$R_0 \leq 2$ %
Modulation depth	$\Delta T = 27$ %, $\Delta R = 15$ %, $\Delta A = 43$ %
Saturation fluence	$\Phi_{\text{sat}} = 25$ $\mu\text{J}/\text{cm}^2$
Damage threshold	$\Phi = 2$ $\text{mJ}/\text{cm}^2$
Relaxation time constant	$\tau = 6$ ps
Chip area	5 mm x 5 mm; other dimensions on request
Chip thickness	450 $\mu\text{m}$ ; semi-insulating GaAs
Front side protection	dielectric coating
Back side coating	the SA back side is polished and antireflection coated for 1060 nm
Mounting option	<b>x</b> denotes the type of mounting as follows:
	<b>x</b> = 5.0-0 unmounted chip 5.0 mm x 5.0 mm
	<b>x</b> = 5.0-12.7 g glued on a copper heat sink with 12.7 mm diameter with 4 mm hole
	<b>x</b> = 5.0-25.0 g glued on a copper heat sink with 25.4 mm diameter with 4 mm hole
	<b>x</b> = 5.0-25.4 g glued on a copper heat sink with 25.4 mm diameter with 4 mm hole

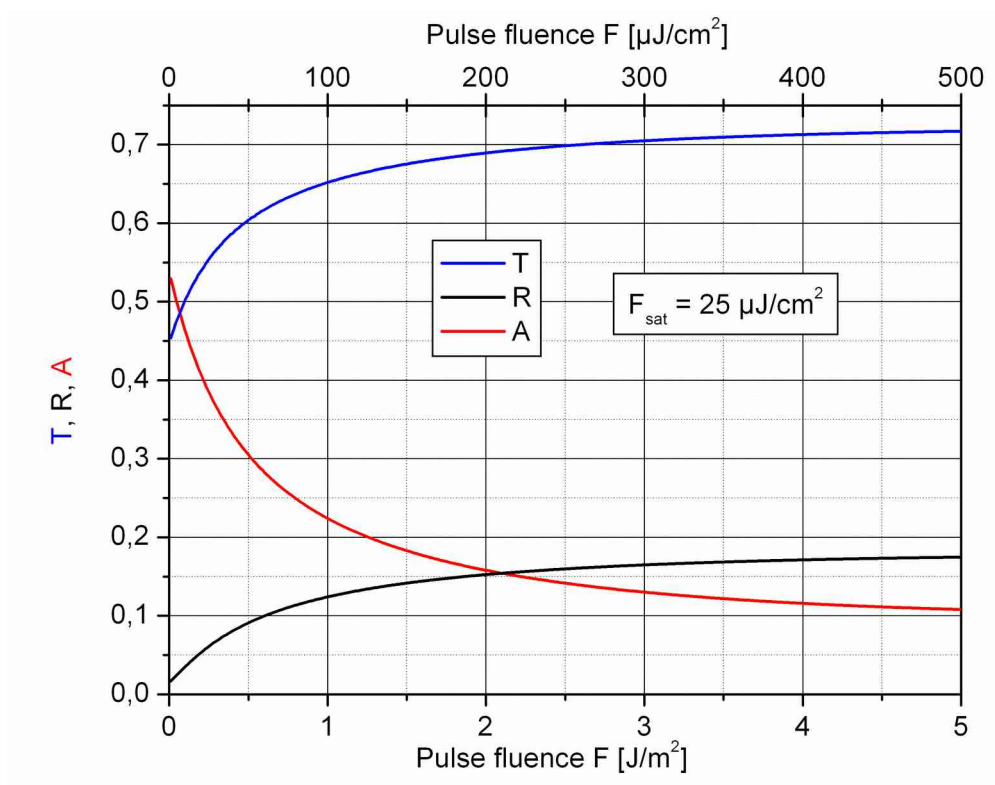


### Calculated saturation for

**T** – Transmittance at resonance wavelength 1057 nm

**R** – Reflectance at resonance wavelength 1057 nm

**A** – Absorptance at resonance wavelength 1057 nm



### Spectral Transmittance $T$ and Reflectance $R$ for different pulse Fluencies $F$

