

MEMS Optical Shutter

1. Key Specifications

- Shutter size: Ø0.5; 0.15x0.16 mm
- Max. shutter displacement: 1.0 mm
- Electrostatic actuation and Electrothermal actuation

2. Specifications

Parameters	Conditions	Unit	Specifications		
			Min	Typical	Max
Shutter Diameter	Circular and rectangular	mm		Ø0.52; 0.15x0.16	
Shutter Flatness	ROC	m	0.8	1	5
Reflectivity (Al or Au reflector)	1260-1660 nm	%	96		99
Power Handling		mW			500
Damage Voltage		V	70		110
Actuation Power	Voltage	V	5		100
	Current	Amperes	0.01		0.04
Max Shutter Displacement		mm	0.2		1.0
Resonant Frequency		Hz	300		6,000
Response Time	From neutral to max displacement using a step function input	ms			1
Temperature Stability	Over -5 to 75 °C	deg.			0.001
Durability	Hermetically sealed	Cycle		10 ⁹	
Operating Temperature		°C	-5		75
Storage Temperature Range	5% humidity	°C	-40		85
Baking Temperature	Less than 3h	°C			110
Wire Bond Temperature	Less than 5min	°C			150