

## NDIR SENSOR

### NDIR CO2 Gas Sensor

#### OGS-202F2

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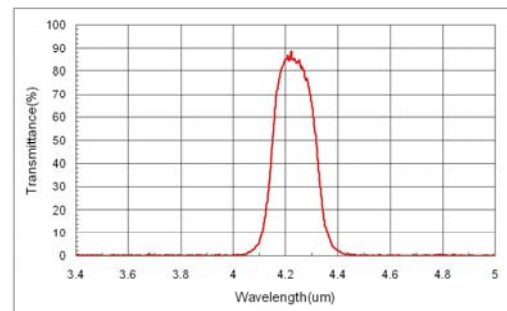


### Introduction

OGS-202F2 is a thermopile device having an output signal voltage directly proportional to the incident infrared (IR) radiation power and largely independent of the wavelength. An infrared narrow band pass filter in front of the sensor makes the device sensitive to CO2 gas concentration.

### Features & Applications

- Infrared absorption (NDIR) gas sensing
- Thermistor temperature reference included
- High sensitivity
- Fast response time



*Transmittance of OGS-202F2*

### Specifications

Model	OGS-202F2		
Target Gas	CO2		
Filter CWL	4.26 um		
Window Size (mm)	2.9mm		
Package Type	TO-46		
Parameter	Typical	Unit	Conductions
Sensitivity	82	V/W	500K, Typical
TC of sensitivity	0.22	%/K	Typical
Sensitivity area	0.9X0.9	mm <sup>2</sup>	
Resistance of thermopile	460±50	KΩ	25°C
TC of resistance	0.11	%/K	Typical
Time constant	16	ms	500K, Typical
Noise voltage	87	nV/Hz <sup>1/2</sup>	r.m.s. 300K
NEP	1.0	nV/Hz <sup>1/2</sup>	500K, Typical
Normalized detectivity (D*)	0.85*10 <sup>8</sup>	cm*Hz <sup>1/2</sup> /w	500K, Typical
Thermistor	Typical	Unit	Conductions
Resistance	100	KΩ	25°C
β value	3964	K	0°C/50°C

