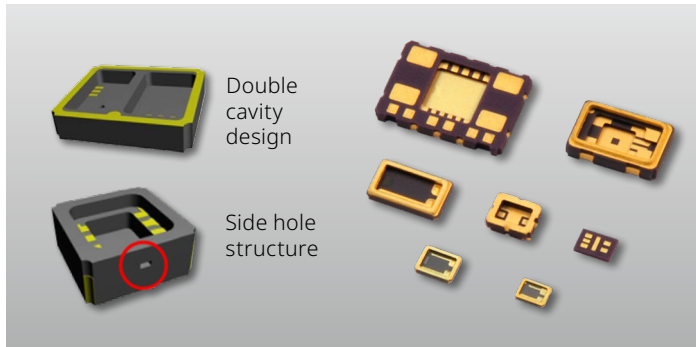


ELECTRONIC PACKAGES

CERAMIC PACKAGES FOR GAS SENSOR APPLICATIONS

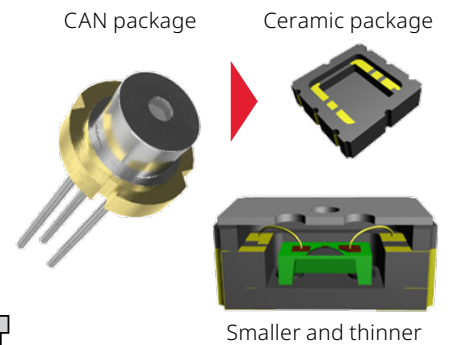
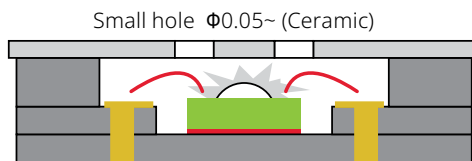
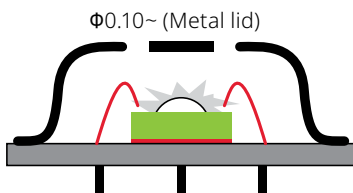


APPLICATIONS

- ▶ Automotive (Smog Emission Sensor, H₂ Leakage Sensor)
- ▶ Mobile Device (Alcohol/Gas Sensor)
- ▶ Gas Alarm for home use
- ▶ Air Cleaner (VOC, Dust sensor)

FEATURES (IN COMPARISON TO METAL PACKAGES)

- ▶ Down sizing (outer dimension, height)
- ▶ Reflow design
- ▶ Small hole design ($\phi 50\mu\text{m}$) → dust resistance
- ▶ Improve corrosion → high humidity resistance

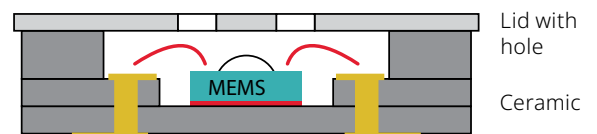


FEATURES (IN COMPARISON TO ORGANIC PACKAGES)

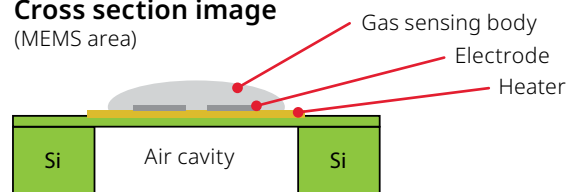
- ▶ Less outgassing
- ▶ High heat resistance (-45 °C – +125 °C)
- ▶ Flame resisting material → safe for flammable gas
- ▶ Similar CTE to Silicon
- ▶ Water resistance

SURFACE MOUNT TECHNOLOGY (SMD)

- ▶ Automatic reflow process by SMD



Cross section image



Detect gas by heating the gas sensing body around 200 °C to 500 °C.