

Caution

Application

Please contact our sales representatives or product engineers before using the products for the applications listed below, which require especially high reliability for the prevention of defects which might directly damage a third party's life, body or property.

1. Aircraft equipment
2. Aerospace equipment
3. Undersea equipment
4. Power plant equipment
5. Medical equipment
6. Transportation equipment (vehicles, trains, ships, etc.)
7. Traffic signal equipment
8. Disaster prevention / crime prevention equipment
9. Data-processing equipment
10. Application of similar complexity and/or reliability requirements to the applications listed above

Storage Condition

Please note the following conditions to retain the solderability of the products.

1. Store the products in the manufacturer's or a sealed box with the following conditions.
 - Temperature: -10 to 40°C without rapid change
 - Humidity: 30 to 70%RH
2. Avoid storing the products in the following conditions.
 - (a) Ambient air containing corrosive gas (chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxide gas, etc.)
 - (b) Ambient air containing volatile or combustible gas
 - (c) In environments with a high concentration of airborne particles
 - (d) In liquid (water, oil, chemical solution, organic solvents, etc.)
 - (e) In environments prone to dew
 - (f) In direct sunlight
 - (g) In freezing environments
3. To retain solderability, do not touch the products directly with bare hands.

Soldering and Mounting Condition

1. Die Bonding
 - (1) Materials and bonding conditions
 - Solders: Au-20%Sn
 - Bonding temperature: 300 to 320°C
 - Bonding time: Within 1 minute
 - Bonding atmosphere: N₂ atmosphere
 - (2) Notice
 - (a) Please mount the products with gentle scrubbing.
 - (b) Die bonding condition is affected by what type of solder and base substrate are used.

Please evaluate die bonding condition in advance with the same materials as mass production materials and ensure that there is no effect, especially cracking of the ceramic.
2. Wire Bonding
 - (1) Materials and bonding conditions
 - Wire lead: 25μmØ gold wire (Au thickness: 4μm/8μm)
38μmØ gold wire (Au thickness: 4μm/8μm)
50μmØ gold wire (Au thickness: 8μm)
 - Bonding temperature: 150 to 250°C
 - Bonding methods: Thermocompression or thermosonic bonding
 - (2) Notice
 - 25μmØ gold wire
Min. electrode size: 100μm square
Please keep bonding more than 25 microns away from The edge of the electrode.
 - 38μmØ gold wire
Min. electrode size: 300μm square
Please keep bonding more than 40 microns away from the edge of the electrode.
 - 50μmØ gold wire
Min. electrode size: 400μm square
Please keep bonding more than 50 microns away from the edge of the electrode.

Please contact us for other bonding conditions not listed above.