

1. Operation Temp.
-40 to +85 degree C

2. Soldering Condition

2.1 Reflow Soldering

Soldering must be carried out without exceeding the allowable soldering temperature and time shown within the shaded area of FIGURE "Allowable Temperature and Time of Reflow Soldering."

In case the soldering is repeated, the maximum time in FIGURE "Allowable Temperature and Time of Reflow Soldering" should be accumulated time. The standard soldering conditions are shown in FIGURE "Reflow Soldering Standard Conditions".

2.2 Soldering by soldering iron

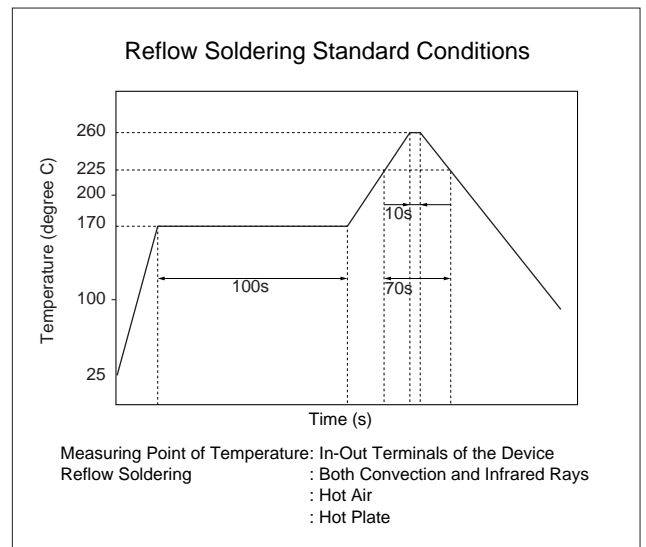
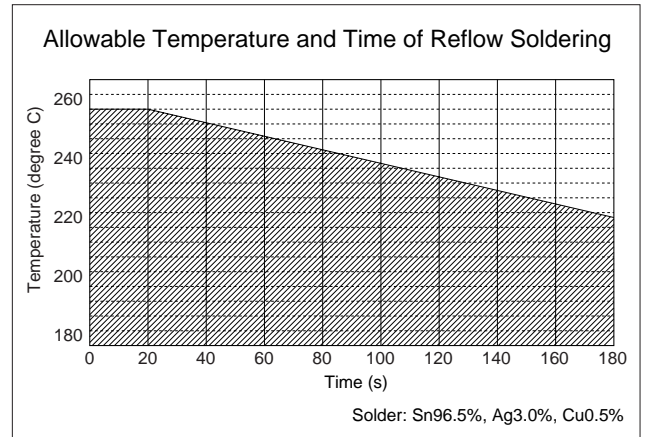
Soldering by soldering iron should be carried out in accordance to the following conditions.

Pre-heating Temperature: 120 degree C

Time: 60 to 300 sec.

Soldering Temperature (at the tip of the soldering iron): less than 340 ± 5 degree C

Time: 5 sec. max. per each terminal




3. Environment Conditions

3.1 This product is designed for use of electrical equipment in the environment (temperature, humidity, atmospheric pressure and etc.) specified in this approval drawing: it may not be used in the following environments or under the following conditions.

- Ambient air containing corrosive gas (Cl₂, H₂S, NH₃, SO_x, NO_x, etc.).
- Ambient air containing volatile or combustible gas.
- In liquid (water, oil, chemical solution, organic solvents, etc.).
- In environments with a high concentration of airborne particles.
- In direct sunlight.
- Dusty conditions.
- In freezing.
- Other environments similar to the above conditions.

3.2 Contact the manufacturer before using the product in any of the above environments or under any of the above conditions.

 Continued from the preceding page.

3.3 Usage Conditions

3.3.1 Do not apply electrical power or DC voltage greater than specified in the drawing. It might be a cause of degradation or destruction of the product. Even if it endures during a short time, long time qualification is not guaranteed.

3.3.2 Confirm that there are not any influence to the product's performance which might be caused by the other components which touch with the product.

3.4 Handling, Storage and Transportation of The Product

3.4.1 Do not apply excessive pressure or shock (including drop) to product in handling or transportation because the ceramic material which is used inside might be distracted.

3.4.2 Do not apply excessive shock or load to subassembly like soldered printed circuit board in case of handling and transporting it.

3.4.3 Do not damage the outer-electrode on ceramic, case and cover in processing or transportation, because the characteristic might become degraded.

3.4.4 Do not touch the outer-electrode on ceramic, case and cover with bare hand, because solderability might become degraded.

3.4.5 Store in manufacturer's package or tightly re-closed box with the following conditions. Use this product within 6 months after receipt. Check the terminal solderability before use, if the product has been stored for more than 6 months.

Temperature: -10 to +40 degree C

Humidity: 15 to 85% RH