Notes on soldering

1. Type

HSNT-4(0808), HSNT-4(0808)B, HSNT-4(1010), HSNT-4(1010)B packages

2. Storage

The epoxy resin used in packages absorbs moisture in air, and the absorbed moisture vaporizes and expands during mounting. When the absorbed moisture amount becomes large, package cracks may occur.

For this reason, storage in lower humidity environment is recommended.

Packages adapted to the storage condition of the ambient temperature (Ta) of 5 to 30°C and relative humidity (RH) of 40 to 70%. This product is suitable for using it within one year.

3. Rinse

When rinse-free flux is applied, rinsing is not necessary. It may cause corrosion when residue of the active agents remained in the flux. Good selection of flux is indispensable to avoid corrosion.

4. Resistance to soldering heat (Reflow soldering)

4. 1 Reflow soldering

The temperature rise may be different in the resin and a terminal part due to the reflow soldering. It is necessary to check the package surface temperature (resin) before setting the temperature profile. Figure 1 shows the resistance to soldering heat condition for package (Reflow method). Confirm the heat resistance of the package shown below. (Based on JEDEC J-STD-020)

10 s max. Temp. Peak temperature: 260°C More than 255°C 30 s max. Ramp up rate: 3°C/s max. Ramp down rate: 6°C/s max. More than 217°C 60 to 150 s 200°C 150°C Preheat area: 60 to 120 s Temperature measurement point: resin surface temperature 25°C Time: 8 min max. to peak Time

Figure 1 Resistance to soldering heat condition for package (Reflow method)

Number of maximum reflow cycles: Three times

5. Caution on heat sink at backside

Please do not use a heat sink as terminal.

The heat sink has different potentials depending on the product so that it may not work with wrong connection. Use the heat sink in order to improve the package abilities of heat diffusion and mounting strength.

e.g. HSNT-4(0808), HSNT-4(0808)B e.g. HSNT-4(1010), HSNT-4(1010)B Bottom view Bottom view Heat sink at backside Heat sink at backside