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Accelerated switchover to lead-free solder in response to Europe's <u>RoHS directive</u> ~ Packaging ~

Since July 1, 2006, the use of products containing materials specified by RoHS is prohibited in EU Member States. In semiconductor packages, usage of lead-tin alloy which was used as a solder material for printed circuit boards is prohibited, and the development of the lead-free solder material advanced. The lead content is specified to be 1000 ppb (0.1 wt%) or less. The melting point of the lead-free solder material is higher by about 30 degrees than that of the lead-tin solder material, that required to use package materials that can withstand higher temperature.

RoHS:Restriction of Hazardous Substances

	Composition	Liquidation temp.(°C)
High temp. group	Sn95Sb5 Sn97Cu3 Sn92Cu6Ag2 Sn95Ag5	241°C 309°C 373°C 240°C
Medium temp	Sn 97Ag3 Sn 95.8Ag3.5Cu0.7 Sn 96Ag2.5Bi1Cu0.5 Sn 88ln 8Ag3.5Bi0.5	222°C 217°C 218°C 218°C 212°C
Low temp.	Bi58Sn42 In58Sn42	139°C 118°C
Ref	Sn62Pb38	183°C

Version 2019/1/31