



Shipping Labels for RoHS Compliant Components

Basis of RoHS Marking

Certain electronic components and systems are required to be free of six specific hazardous substances in order to meet the “Restriction of Hazardous Substances” (RoHS) European directive by July 2006. A standard means of marking and labeling electronic components must be used to communicate compliance to the RoHS requirements. Currently, there is not an established standard outlining the requirements for marking, symbols and labels for the identification of assemblies, components and devices meeting RoHS compliance. This information sheet explains how Bourns will mark RoHS compliant resistive passive components. In addition, Bourns will adapt marking requirements of JESD97 for identifying terminal finish on RoHS compliant resistive passive components. Bourns will comply with the RoHS industry marking requirements at such time that a standard is established.

RoHS Definition

Bourns RoHS compliant components meet the standards set forth by the RoHS Directive 2002/95/EC, with exceptions noted in the Annex. The directive defines RoHS compliant as electrical and electronic assemblies and components that do not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers.

RoHS Identification Symbol



Bourns will use this symbol on product shipping labels to communicate that components/devices and/or board assemblies are RoHS compliant in accordance with the RoHS Directive, with exceptions noted in the Annex.

Terminal Finish Categories

Terminal finish will also be noted on the shipping label with one of the category identifiers placed in a circle. The following categories define the lead-free terminal finish/material of components and/or the solder paste/solder used in board assembly in accordance with JESD97:

- e1 – SnAgCu (shall not be included in category e2)
- e2 – Sn alloys with no Bi or Zn, excluding SnAgCu
- e3 – Sn
- e4 – Precious metal (e.g., Ag, Au, NiPd, NiPdAu) (no Sn)
- e5 – SnZn, SnZnx (no Bi)
- e6 – contains Bi
- e7 – low temperature solder ($\leq 150^{\circ}\text{C}$) containing Indium (no Bi)

Example of Shipping Labels

The following shipping labels illustrate examples of RoHS and terminal finish marking.

