

# ON Semiconductor Packaging and Labeling Guidelines

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#### Definitions

- MPN Label: A bar-coded label containing the ON Semiconductor Manufacturer Part Number of the device and other traceability information. Label dimensions for the MPN label, are 1.625" x 4.9" (41.275mm x 124.46mm)
- CPN Label: A bar-coded label containing the Customer Part Number and other details used by the customer to identify the primary packaging.
- Shipping Label: A bar-coded label used to identify the contents of a shipping container. This also contains a "SHIP TO" name and address. Label dimensions are 4.5" X 6.5" (114.3mm X 165.1mm)
- Intermediate Box: The box that holds the primary container of the product (eg. tape-and-reels, trays, wafer boats, etc.)
- Overpack Box: The box that contains one or more Intermediate box. Each Overpack box will have a Shipping Label. ON Overpack boxes have no logos or graphics.



# Labels

#### a. MPN Label

Each Intermediate Box will have a standard ON Semiconductor MPN Label. The label consists of the following elements:

| Field Name        | Description  |
|-------------------|--|
| MPN (1P) *        | Manufacturer Part Number   |
| LOT (1T) *        | Lot Number (maximum of 10 alphanumeric characters)   |
| DTE (9D) *        | Date Code(s) in "YYWW" format ("YY" denotes 2-digit year and<br>"WW" denotes 2-digit work week; maximum of 2 datecodes<br>denoted as "YYWWYYWW") |
|                   |  |
| QTY (Q)*          | Quantity in container  |
| ASSY LOC (21L) *  | Assembly Location Code (Internal to ON Semiconductor)  |
| SERIAL NBR (s) *  | Internal to ON Semiconductor   |
| CS Customs Source | 2-digit Country of Wafer Diffusion   |
| ASSY IN           | Country of Assembly  |
| MS LEVEL          | Moisture Sensitivity Level   |
| HOURS             | Time period the product can be exposed to ambient room conditions  |
| TEMP              | Maximum operating temperature of the product   |
| SEALED DATE       | Date when the moisture barrier bag is sealed   |
| Halide Free Logo  | Indicates if material is Halide Free   |
| RoHS              | Indicates if material complies with Europe RoHS  |
| PB Free Logo      | Indicates if the material is Lead (Pb) Free  |
| 2LI e category    | Indicates type of second level interconnect plating  |
| UL Logo           | indicates if material is Underwriter Laboratories listed device  |
| China RoHS Logo   | Indicates if material complies with China RoHS   |
| *Barcoded Fields  |  |

Sample of an MPN Label:





#### b. CPN Label

Each Intermediate Box will have a standard ON Semiconductor MPN Label. The label consists of the following elements:

| Field Name         | Description  |
|--------------------|--|
| CUST PROD ID (P) * | Customer Part Number   |
| QTY (Q) *          | Quantity in container  |
| DTE (9D) *         | Date Code(s) in "YYWW" format ("YY" denotes 2-digit year and<br>"WW" denotes 2-digit work week; maximum of 2 datecodes<br>denoted as "YYWWYYWW") |
| VDR (2V)*          | Vendor code  |
| MPN                | Manufacturer Part Number   |
| COO (4L)*          | Country Of Origin  |
| *Barcoded Fields   |  |

Sample of a CPN Label:





*c. Shipping Label* Each Overpack will have a standard ON Semiconductor shipping label. The label consists of the following elements:

| Field Name             | Description   |
|------------------------|---|
| From                   | ON Semiconductor return address                               |
| Ship TO                | Customer Name and Address                                     |
| MPN                    | Manufacturer Part Number                                      |
| FO                     | Factory Order Number; Line item; Factory Order Sub Job        |
|                        | ON Semiconductor UCC code, packing list number and three      |
| (3S) PKG ID *          | digit package number  |
| (K) TRANS ID *         | Purchase Order Number   |
| (P) CUSTOMER PROD ID * | Customer Part Number  |
| (Q) Quantity *         | Package Quantity  |
|                        | Which package out of the total number of packages in the      |
| (13Q) Package Count    | shipment  |
|                        | Packing List number + which package out of the total number   |
| (S) Serial # *         | of packages in the shipment                                   |
| (No Header)            | Various Environmental Logos                                   |
|                        | Country of Origin based on Assembly, with 2 digit ISO Country |
| COO Assy               | Code  |
| (No Header)            | Customer Code   |
| *Barcoded Fields       |   |



Sample of a Shipping Label:



#### d. Packing List & Certificate of Compliance

The Overpack box will contain a packing list detailing the contents of all Overpack boxes of an the order. The Packing List contains ON's standard Certificate of Compliance. The label consists of the following elements:

|      | Field Name          | Description                                     |
|------|---------------------|---|
|      | Ship From           | ON Semiconductor Return Address                 |
| 4    | Ship To             | Customer's Name and Address                     |
| Text | Bill To             | Customer's Billing Address                      |
|      | Customer Code       | ON Semiconductor designated customer identifier |
|      | End Customer PO No. | Issuing Customer purchase order number          |

| ON                |                            |  |
|-------------------|----------------------------|--|
|                   | S/B                        | Bick Bank  |
|                   | F/O                        | Sales Order  |
|                   | S/J                        | Sub Job (3 maximum sub jobs; then prints multiple                                |
|                   | L/L                        | Sales Delivery (3 maximum deliveries; then prints multiple                       |
|                   | Purchase Order Date        | Purchase order issue date  |
|                   | Manufacturer P.D. Date     | Manufacturer Planned Delivery Date   |
|                   | CSD                        | Customer Schedule Date   |
|                   | FOB                        | Freight On Board-Customer takes possession at the location specified             |
|                   | Terms                      | Freight shipping terms (who pays for the freight)                                |
|                   | Ship VIA                   | Carrier or freight forwarder   |
|                   | PKG#                       | Shipment package number  |
|                   | Weight                     | Package weight in pounds and kilograms   |
|                   | Waybill Number             | Shipper identification number for that shipment used for tracking                |
|                   | Lot Number                 | Product manufacturing lot number   |
|                   | Quantity                   | Manufacturing lot quantity   |
|                   | Date Code                  | Manufacturing Dates  |
|                   | Assembly Location          | Manufacturing Location   |
|                   | Die Origin                 | Die Fabrication Location   |
|                   | (2V) Vendor ID             | ON Semiconductor UCC number or Customer assigned<br>Vendor Code                  |
|                   | (11K) Packing List         | Packing List number  |
| xt                | (4S) Package ID            | Vendor ID and packing list number  |
| Те                | (K) Transit ID             | Customer's purchase order number   |
| bue               | (P) Customer Prod ID       | Customer Part Number   |
| Bar Code and Text | (1P) Manufacturer Part     |  |
| CO                | Number                     | ON Semiconductor Part Number   |
| ar                | (Z) Parcels                | Total box count  |
|                   | (2Q) Total Weight in KG    | Total package weight of shipment in kilograms (weight in pounds listed above kg) |
|                   | (Q) Quantity This Shipment | Package Quantity   |
|                   | (13D) Date Code            | Product date code(s)   |



#### Sample Packing List:

| CV) VENDOR ID: 6896<br>CV) VENDOR ID: 6896<br>P ON SEMICONDUCTOR LTD C/O ON SEMI CZ SRO<br>R 1.MAJE 2230, BUDOVA M8<br>O 756 61 ROZMOV P R,CZECH REPUBALICTOMER PO NO.<br>M TEL:+421 33 790 2276   | 06   |  | ER CODE : BBHCZ  | DATE: 12 JAN 15<br>PAGE 1 OF 1<br>S/B: SG10<br>F/O: 3621SB-05  |
|--|--|--|--|--|
|  |  |  | CUSTOMER REC   | S/J: A01<br>L/L: 65<br>DER DATE: 23 AUG 12<br>DATE: 07 OCT 14<br>R P.D. DATE: 19 JAN 15<br>03 OCT 14   |
| (4S) PACKAGE ID: 689606 GVQGBF   |  |  | (Z) PARCELS:   | 1 REVISION:  |
|  |  |  |  | 3LBS 120Z)   |
| (K) TRANS ID: 55139334/001   |  |  | (2Q) TOTAL WI<br>(Q) QTY THIS  |  |
|  |  |  |  |  |
| (1P) MANUFACTURER PART NUMBER: NCV5501DT50RKG  |  |  | (13D) DATE CO<br>OLDEST/NEWE   |  |
|  | FOB  | - TERMS  |  | DATE ASSY DIE  |
| THIS ONDER/SALE LIMITS ACCEPTANCE TO THE TERMS HEREIN AND TO<br>ON SEMICONDUCTOR'S STRAINARD TERMS AND CONDITIONS OF SALE AVAILABLE AT<br>WWW.ORSEMI.COM WHICH ARE INCORPORATED HEREIN. ANY ADDITIONAL OR<br>DIFFERENT TERMS PROPOSED BY BUYER ARE REJECTED UNLESS EXPRESSLY<br>AGREED TO IN WRITING.  | FL<br>SHIP VIA: UPS<br>(WEIC<br>PKG# LBS<br>(001) 3.74 |  | LOT NUMBER<br>CD4255001  | OUANTITY CODZ LOC ORIGIN<br>2,500 1442 MYS CZ  |
| CERTIFICATE OF COMPLIANCE<br>IT IS HEREBY CERTIFIED THAT ALL ARTICLES IN THE QUANTITIES AS CALLED FOR<br>IN THE ABOVE PURCHAE ORDER AND IN CONFORMANCE WITH THE REQUIREMENTS,<br>SPECIFICATIONS AND DRAWINGS LISTED ON THAT ORDER WITCH HAVE BEEN ACCEPTED<br>BY ON SENGLONUCTOR IN WEITING. ERCORDES UBUSTANTIATION THE ABOVE STATEMENT<br>ARE AVAILABLE IN OUR FILES FOR INSPECTION BY AUTHORIZED PERSONNEL. |  | THEER COMMODITIES, TECHNI<br>LAWS, INCLUDING BUT NOT<br>NOT BE EXPORTED OR RE-EX<br>EMMARGOED COUNTRIES, OR<br>OF MASS DESTRUCTION, OR<br>U.S. GOVERNMENT DIVERSIT | INITED TO THE EXPORT ADMI<br>FORTED TO DENIED ENTITIES<br>FOR ACTIVITIES RELATED TO  | ECT TO ALL D.S. EXPORT CONTROL<br>NISTRATION REGULATIONS. IT MAY<br>OR TO ANY PROINTING PERSON.<br>THE PROLIPERATION OF WEAPONS<br>HOUT FRICK APPROVAL OF THE<br>BE LAW IS PROVENTING. |
| KEENAN EVANS, SENIOR VICE PRESIDENT, GLOBAL QUALITY AND RELIABILITY  | ]  | ON THEIR CONTAINERS INDI-<br>THE REQUIREMENTS OF 19 U<br>ARTICLES OR THEIR CONTAI<br>INDELIBLY AND PERMANENTL<br>IN SUCH & MANNER AS TO I                          | LUDD HERRIN ARE INFORTED<br>CATING MANUFACTURE IN COUN<br>S.C. 1304 AND 19 CFE PART<br>WERS MUST BE MARKED IN A C<br>4 AS THE MARKED IN THE ART<br>NDICATE TO AN ULTIMATE PUR<br>FRY OF ORIGIN OF THE ARTIC<br>CR CHR: N | TRIES OTHER THAN THE UNITY TATES.<br>134 PROVIDE THAT THE IMP(<br>ONSPICUOUS PLACE AS LEGIEN<br>ICLE OR CONTAINER WILL PRO<br>CHASER IN THE UNITED STATE THE                           |
| CERTIFICATE O  | E COMP   | TINCE  |  |  |

IT IS HEREBY CERTIFIED THAT ALL ARTICLES IN THE QUANTITIES AS CALLED FOR IN THE ABOVE PURCHASE ORDER ARE IN CONFORMANCE WITH THE REQUIREMENTS, SPECIFICATIONS AND DRAWINGS LISTED ON THAT ORDER WHICH HAVE BEEN ACCEPTED BY ON SEMICONDUCTOR IN WRITING. RECORDS SUBSTANTIATING THE ABOVE STATEMENT ARE AVAILABLE IN OUR FILES FOR INSPECTION BY AUTHORIZED PERSONNEL.

KEENAN EVANS, SENIOR VICE PRESIDENT, GLOBAL QUALITY AND RELIABILITY

#### EXPORT STATEMENT

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#### **Reconstructed Die Sales Labeling**

For Recon Die Sales shipped in wafer containers, labels are as illustrated:















#### Single Film Frame Reconstructed Die Sales Labeling

For Recon Die Sales shipped in single film frames, labels are as illustrated:

















# **Chip Tray Labeling**

For dry-packed chip trays, labels are as illustrated:

















# **Tray Labeling**

For dry-packed JEDEC trays, labels are as illustrated:

















# **Tape-and-Reel Labeling**

For Tape-and-Reel products, labels are as illustrated:



















#### **Demoboard/Headboard Labeling**

For demoboards/headboards, labels are as illustrated:



# Packaging

Shipments from ON Semiconductor will follow ON's standard packaging process. The Overpack box may contain multiple primary packaging of a single product. For each line item on an order that is shipped, there will be at least one overpack box [more if the quantity of primary packaging exceeds the capacity of the overpack box]. Any overpack box will contain one and only one part number, but may contain varying lots and date codes based on the content of the primary packaging. The following illustrates the to-be packaging standards.



#### **Asia Hub Packing List**

The Hub Packing List contains a consolidated list of all shipments to a specific customer location that have been consolidated at the ON Semiconductor Hub prior to final customer shipment. The Hub Packing List consists of the following elements:

| Field Name               | Description   |
|--------------------------|---|
| DO No:                   | ON Semiconductor Internal Delivery Order Number         |
| From                     | Ship from company name, address and phone number        |
| Ship To                  | Ship-To Customer name and address                       |
| Date                     | Generation date of the packing list                     |
| Ship Via                 | Method of shipment                                      |
| Way Bill No              | Airwaybill No. or "LOCAL" for local trucking            |
| Note                     | Shipping Notes  |
| Invoice                  | Invoice numbers in the packing list                     |
| Total Volumetric Weight  | Total volumetric weight (in kilograms)                  |
| Total Gross Weight       | Total gross weight of the packing list (in kilograms)   |
|                          | Total net weight of the devices in the packing list (in |
| Total Net Weight         | kilograms)  |
| Total Shipment Boxes     | Total count of boxes for the shipment                   |
| Box Sub-Total            | Sub-total count of boxes for each invoice               |
| PO No                    | Purchase Order Number of each invoice                   |
| Invoice No               | Invoice number  |
| MPN                      | Manufacturer Part Number (up to 29 characters)          |
| CPN                      | Customer Part Number (up to 40 characters)              |
| Quantity (PCS) Sub Total | Total quantity for each invoice                         |
| Dimensions (L)(W)(H) cm  | Dimensions of the overpack for the invoice              |
| Box Volume (cm3)         | Cubic centimeters of the overpacks for the invoice      |
| Net WT                   | Net weight of the invoice                               |



#### Sample Asia Hub Packing List:

| DO No.: ON Semiconductor |  |      | niconductor   | 1  | Page 1 Of 1 |
|--------------------------|--|------|---------------|--|-------------|
|                          |  | Pack | ing List      |  |             |
| From:                    |  |      | Date          |  |             |
|                          |  |      | Ship Via:     |  |             |
|                          |  |      |               |  |             |
|                          |  |      | Way Bill No   | <b>D:</b>                                      |             |
| Ship To:                 |  |      | Note:         |  |             |
|                          |  |      |               |  |             |
|                          |  |      |               |  |             |
|                          |  |      |               |  |             |
|                          |  |      |               |  |             |
|                          |  |      |               |  |             |
|                          |  |      |               |  |             |
| Invoice:                 |  |      |               |  |             |
| mvoice.                  |  |      |               | Total Net Weight:                              |             |
| invoice.                 | Total Volumetric Weig                        | ht:  |               | I otal ivet weight:                            |             |
| involce.                 | Total Volumetric Weig<br>Total Gross Weight: | ht:  |               | Total Shipment Boxes::                         |             |
|                          |  | ht:  | Description   | Total Shipment Boxes::                         |             |
| Box<br>Sub-Total         | Total Gross Weight:<br>PO No.                | MPN  | Quantity(PCS) | Total Shipment Boxes::<br>Dimension(L)(W)(H)cm | Net WT      |
| Box                      | Total Gross Weight:                          |      |               | Total Shipment Boxes::                         | Net WT      |
| Box                      | Total Gross Weight:<br>PO No.                | MPN  | Quantity(PCS) | Total Shipment Boxes::<br>Dimension(L)(W)(H)cm | Net WT      |