

# Application Note 0012

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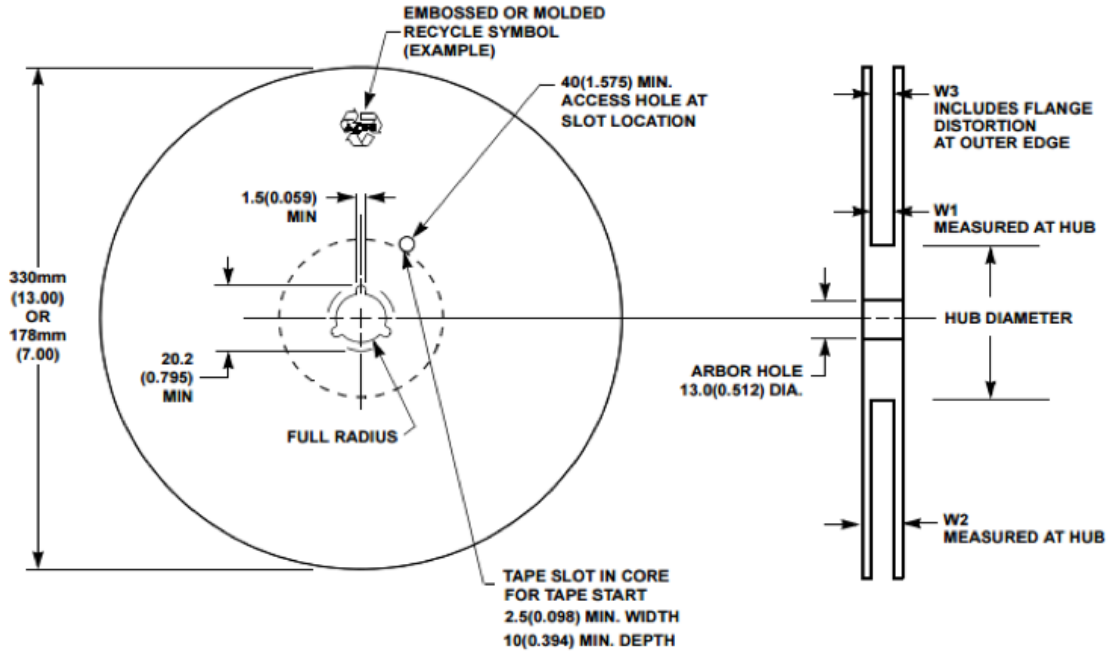
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## Part III: Reel Dimension

- Reel Size: 178mm

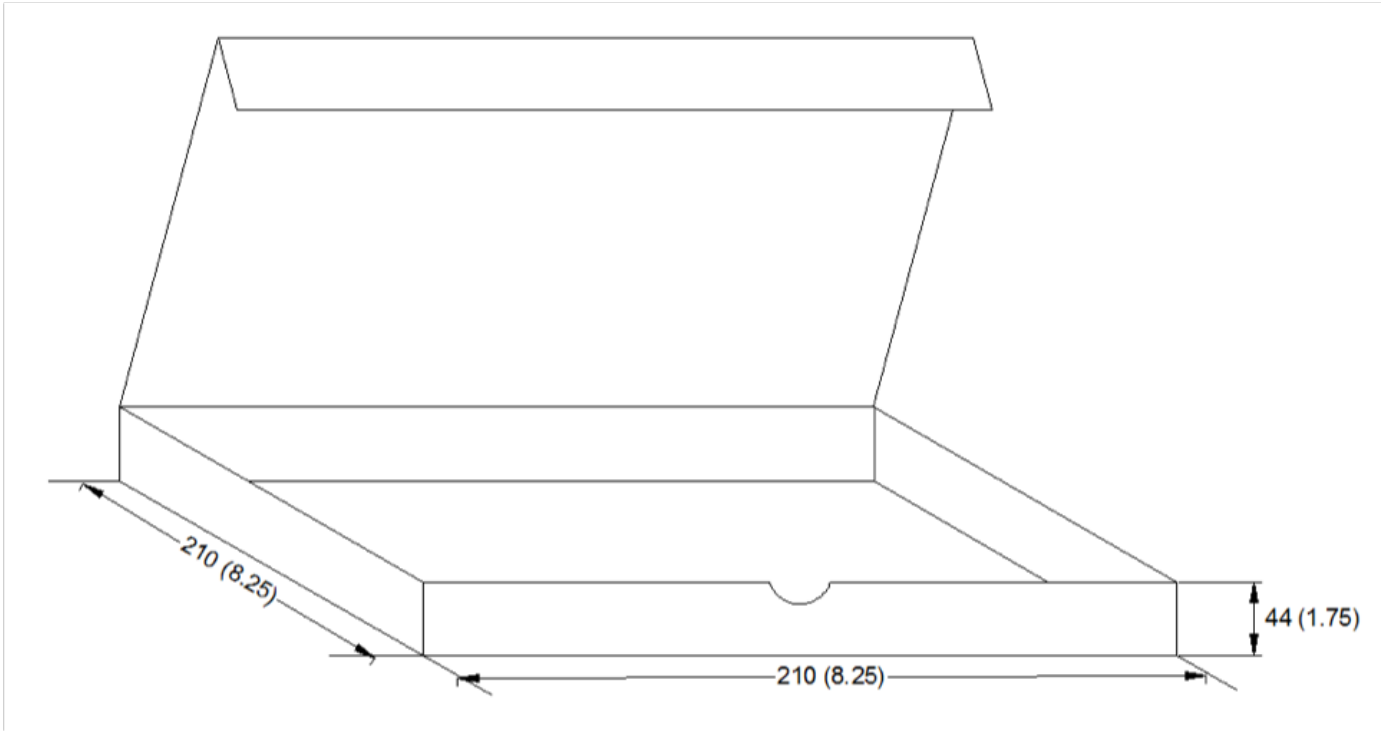


| TAPE WIDTH   | W1 (NOMINAL) | W2 (MAXIMUM) | W3 (MAXIMUM) |
|--------------|--------------|--------------|--------------|
| 8mm (0.315)  | 8.4 (0.331)  | 14.4 (0.567) | 10.9 (0.429) |
| 12mm (0.472) | 12.4 (0.488) | 18.4 (0.724) | 15.4 (0.606) |
| 16mm (0.629) | 16.4 (0.646) | 22.4 (0.882) | 19.4 (0.764) |
| 24mm (0.945) | 24.4 (0.961) | 30.4 (1.197) | 27.4 (1.079) |
| 32mm (1.260) | 32.4 (1.276) | 38.4 (1.512) | 35.4 (1.394) |
| 44mm (1.732) | 44.4 (1.748) | 50.4 (1.984) | 47.4 (1.866) |

Dimensions are in millimeters (inches are in brackets for reference only).

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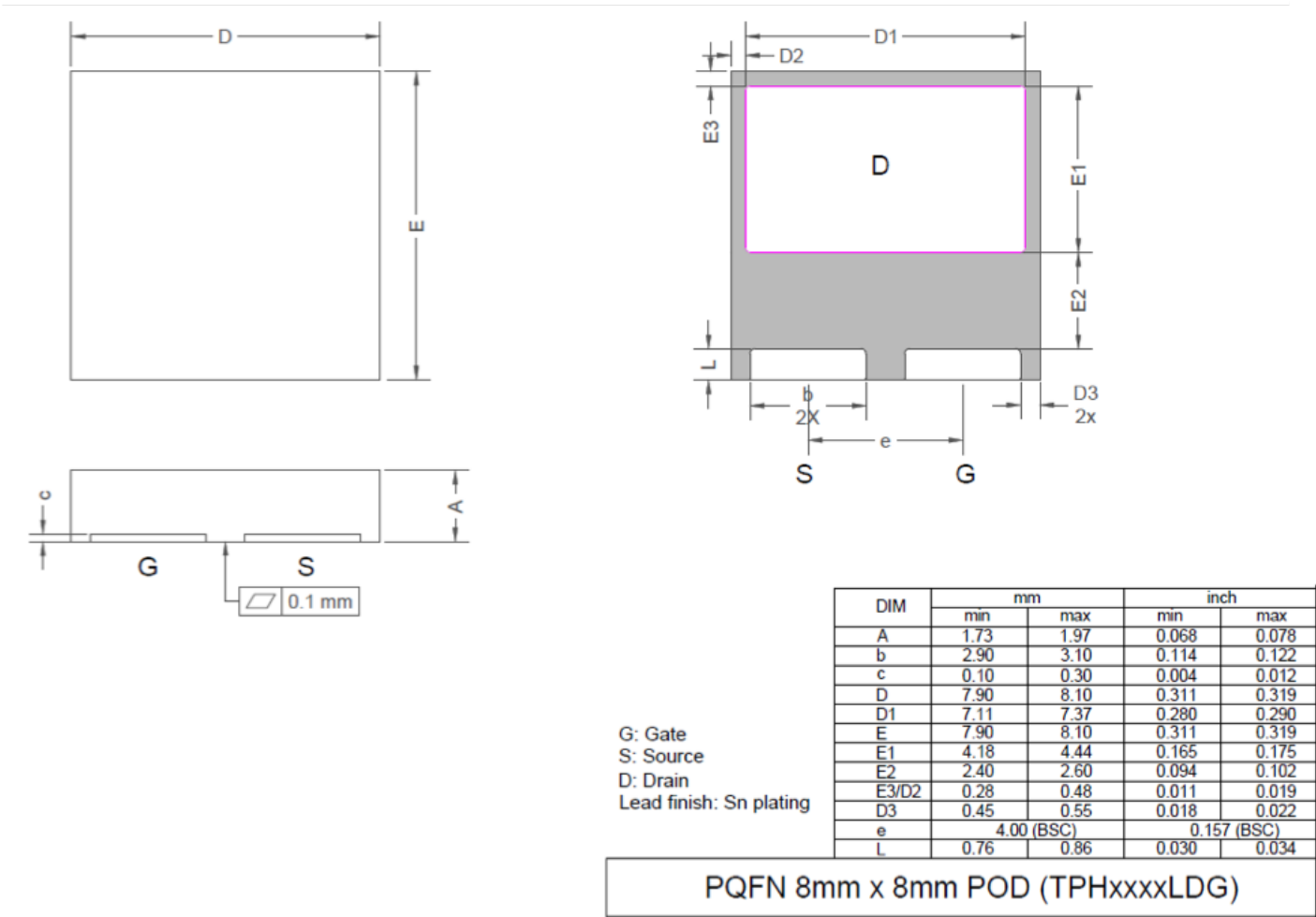
## Part IV: Box Size



Dimensions are in millimeters (inches are in brackets for reference only).

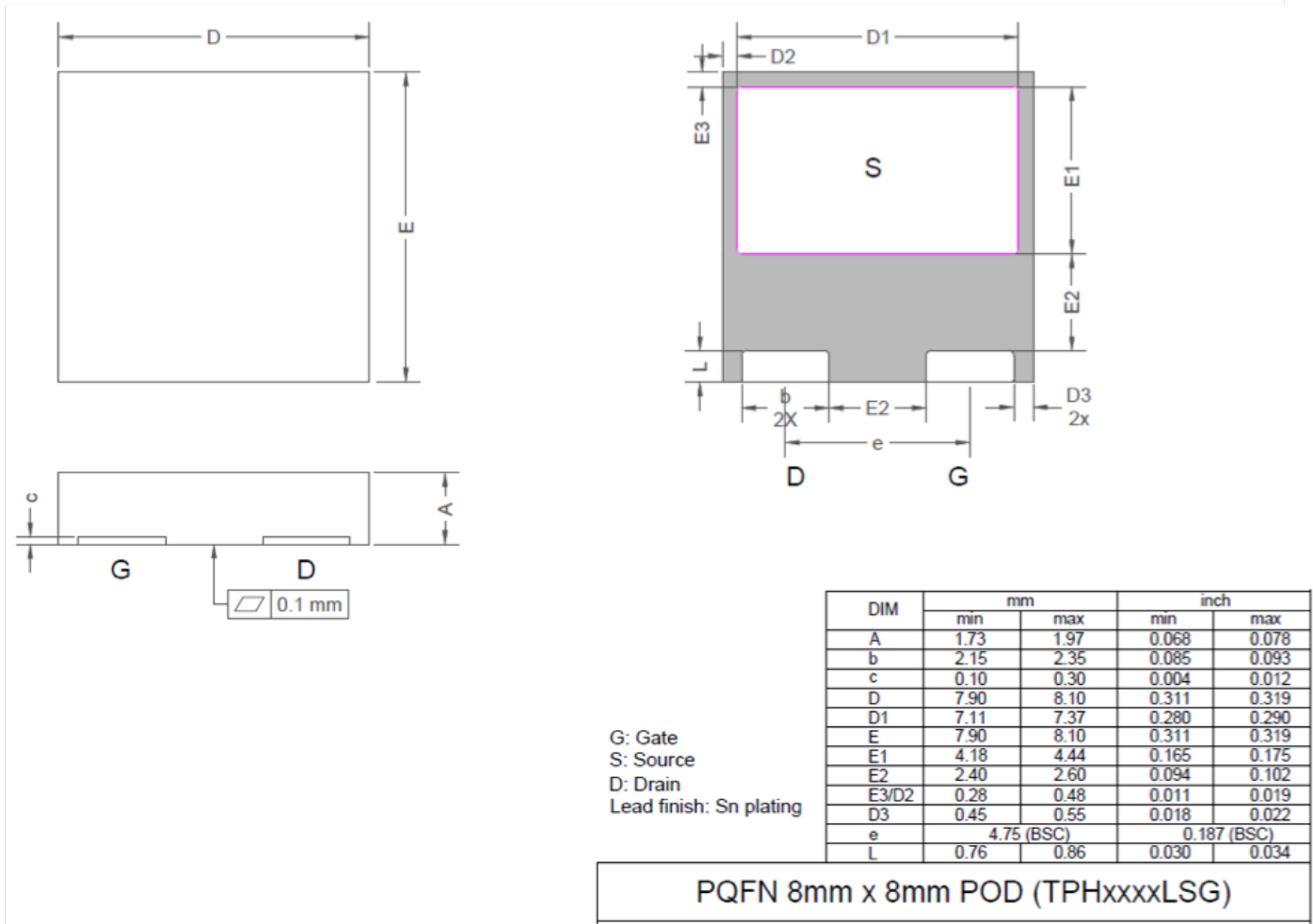
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## Part V: Package POD for LDG Version

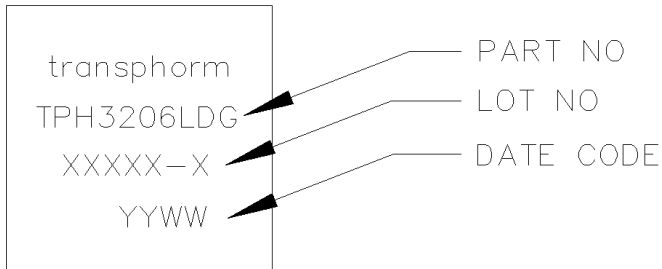


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## Part VI: Package POD for LSG Version & Laser Marking Sample



## Laser Marking Sample



TOP MARKING (LASER)

# Application Note 0012

## Part VII: Tape and Reel Packing Information



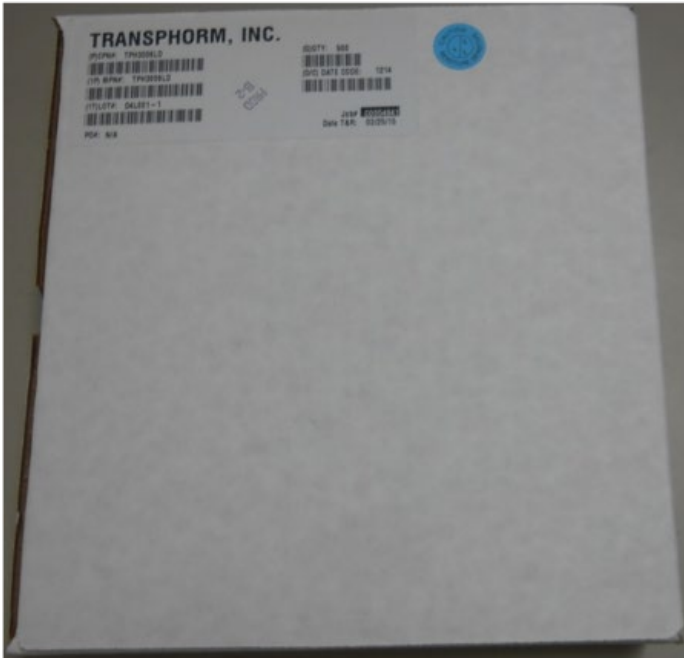
### Tape and Reel Shielding Bag

- 500units/reel
- Maximum 1 reel/box
- Place Tape and Reel inside moisture barrier bag
- Seal moisture bag

•

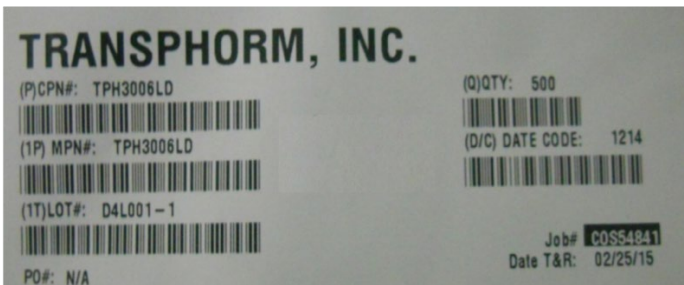
# Application Note 0012

## Part VIII: Internal Shipping Box Information



### Internal Shipping Box

- Tape internal box closed using ESD Label.
- Place Internal Shipping Label.



### Internal Shipping Box Label

**CPN:** Customer Part Number

**MPN:** Transphorm Part Number

**Lot #:** Assembly Lot Number

**QTY:** Quantity contained inside the box

**D/C:** Date Code

**Job #:** Tape and Reel job number

**Date T&R:** Bag seal date

# Application Note 0012

## Part IX: External Shipping Box Information



### External Shipping Box

- Internal Shipping Boxes inside External Shipping Box.
- Number of Internal Boxes ranges from 3 to 5.
- Place External Shipping Label.

### External Shipping Box Label

|                                                                                                                                                                            |                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <b>From:</b> Transphorm, Inc.<br>115 Castilian Drive<br>Goleta, CA 93117                                                                                                   |                                            |
| <b>To:</b> Customer Name<br>Customer Address Line 1<br>Customer Address Line 2<br>City & Zip Code<br><br>ATTN: Customer Name Attention TO<br>Customer ATTN TO phone number |                                            |
| <b>Customer PO:</b><br><br>CUSTOMER 123-A                                               |                                            |
| <b>Customer P/N:</b> <br>HEMT-120                                                       |                                            |
| <b>QTY:</b> <br>1000                                                                    |                                            |
| <b>Transphorm P/N:</b> <br>TPH3205WS                                                    |                                            |
| <u>Country of Origin</u><br>PH                                                                                                                                             |                                            |
| <u>Package Count</u><br>X of X                                                                                                                                             | <u>Package Weight</u><br>x.x lbs / x.xx kg |

**From:** Transphorm shipping address

**To:** Customer name, address attention to, and phone number

**Customer PO:** Customer Purchase Order Number

**Customer P/N:** Customer Part Number

**Quantity:** Total product quantity contain in external shipping box

**Transphorm P/N:** Transphorm Product Number

**Country of Origin:** Country of Origin where product was manufactured

**Package Count:** Number of External Shipping Boxes contained in shipment

**Package Weight:** Weight of packed External Shipping Box

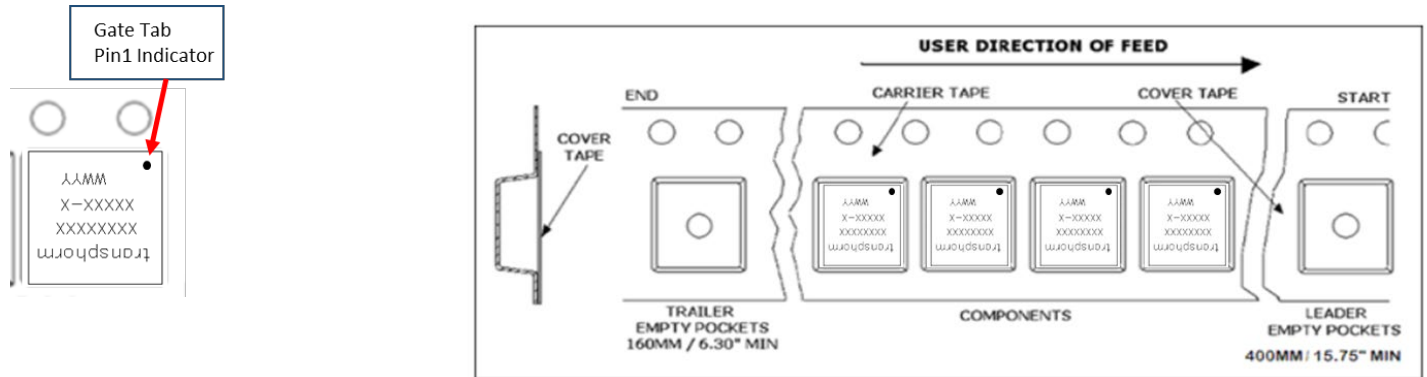
## Application Note 0012

| Shipping Box Size and Weight |         |                          |                                                      |                    |
|------------------------------|---------|--------------------------|------------------------------------------------------|--------------------|
| Shipment                     | Units   | Weight                   | Size                                                 | Comments           |
| 1 box                        | 500pcs  | 0.8 (lbs)<br>0.363 (kgs) |                                                      | FedEx Shipping box |
| 3 boxes                      | 1500pcs | 2.4 (lbs)<br>1.09 (kgs)  | 12 in x 12 in x 12 in<br>304.8mm x 304.8mm x 304.8mm |                    |
| 4 boxes                      | 2000pcs | 3.2 (lbs<br>1.45 (kgs))  | 12 in x 12 in x 12 in<br>304.8mm x 304.8mm x 304.8mm |                    |
| 5 boxes                      | 2500pcs | 4.0 (lbs)<br>1.81 (kgs)  | 12 in x 12 in x 12 in<br>304.8mm x 304.8mm x 304.8mm |                    |

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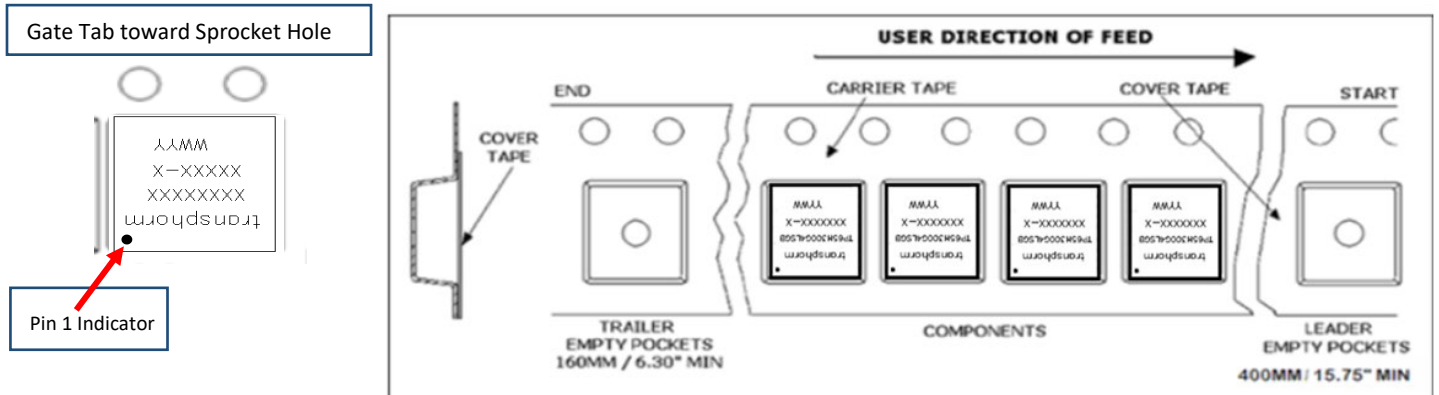
## 2. GEN IV 8X8mm PQFN TAPE & REEL INFORMATION

### Part I: Performance Product Orientation



- Leader Empty Pockets: 77
- Trailer Empty Pockets: 37
- Quantity per Reel: 3,000pcs

### Part II: Industry Standard Product Orientation



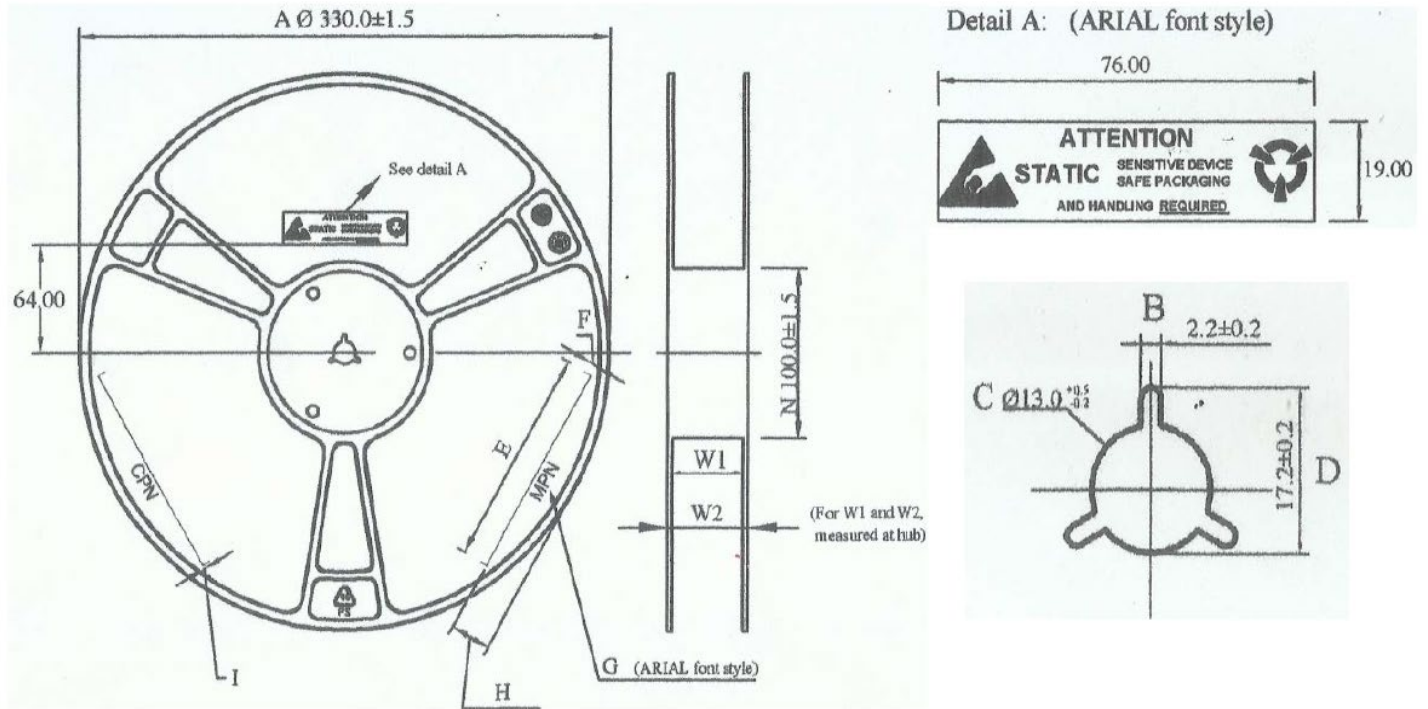
- Leader Empty Pockets: 77
- Trailer Empty Pockets: 37
- Quantity per Reel: 3,000pcs



# Application Note 0012

## Part IV: Reel Dimension

- Reel Size: 330mm

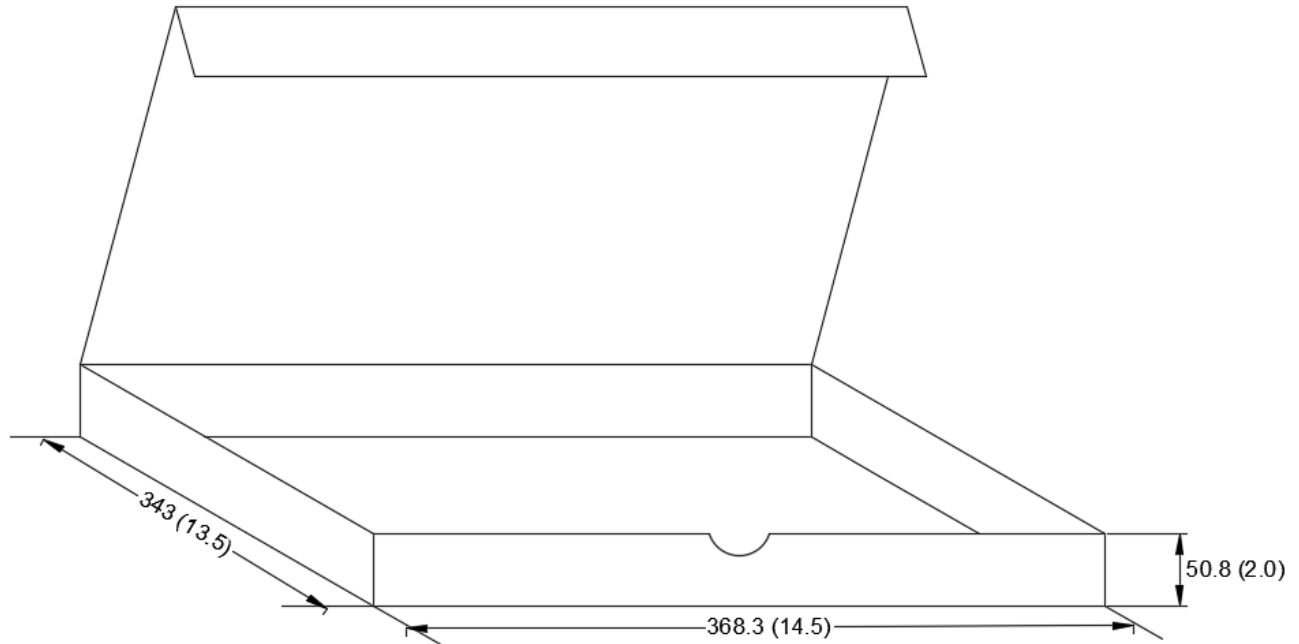


| PRODUCT NAME              | U-PAK P/N  | W1                                    | W2 (Max) | E             | F           | G           | H            | I             |
|---------------------------|------------|---------------------------------------|----------|---------------|-------------|-------------|--------------|---------------|
| 13" 100*12mm Plastic Reel | MUR-223-BX | 12.40 <sup>+2.0</sup> <sub>-0.8</sub> | 18.40    | 130 $\pm$ 1.0 | 5 $\pm$ 1.0 | 8 $\pm$ 1.0 | 25 $\pm$ 1.0 | 0.4 $\pm$ 0.5 |

Color based on customer requirement.  
Material: HIPS (High Impact Polystyrene)  
Need Ultrasonic Welding.  
Surface Resistance:  $10^9 \sim 10^{11} \Omega/\square$   
All dimensions in millimeters unless otherwise specified.  
Text with ARIAL font style.

# Application Note 0012

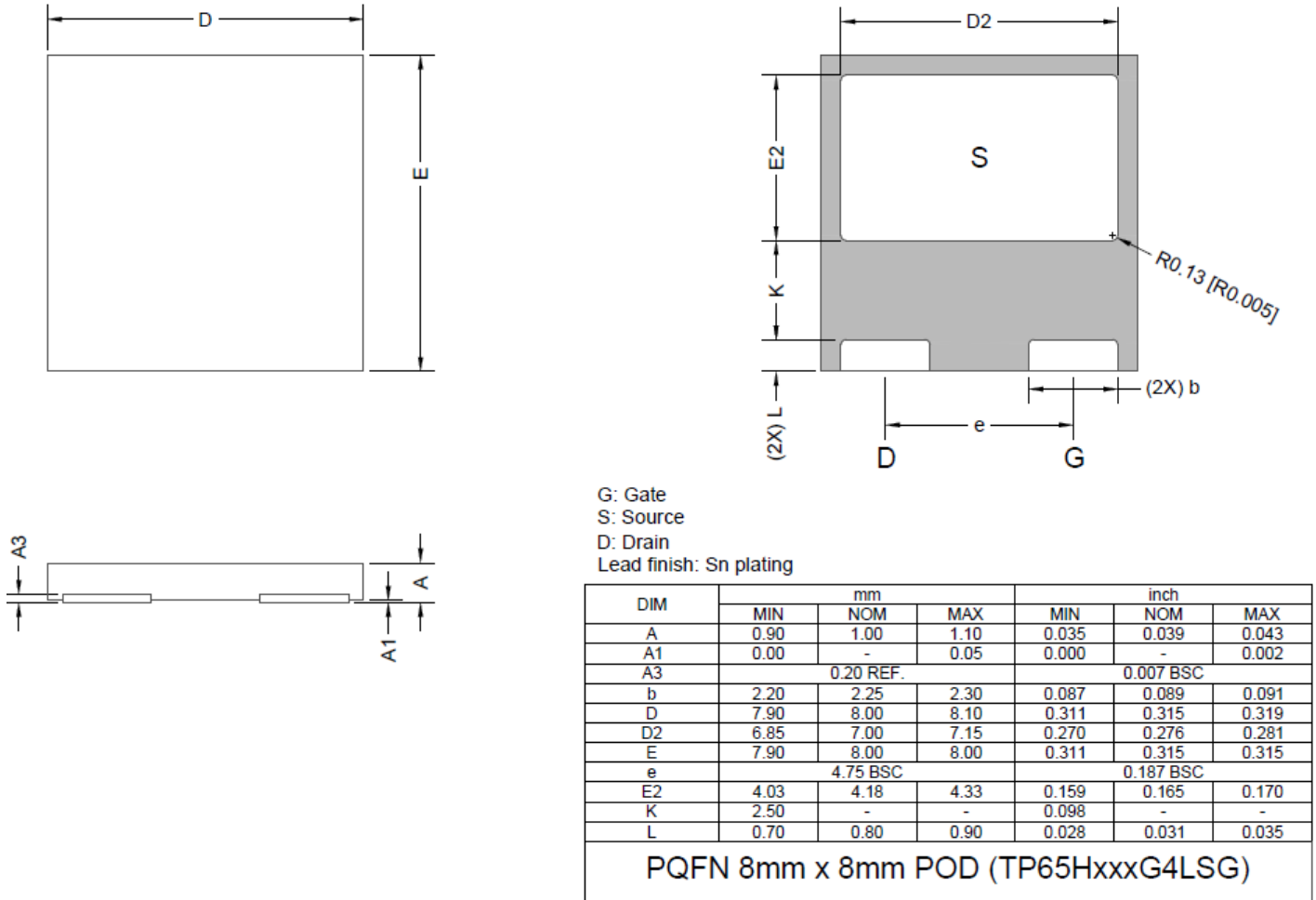
## Part V: Box Size



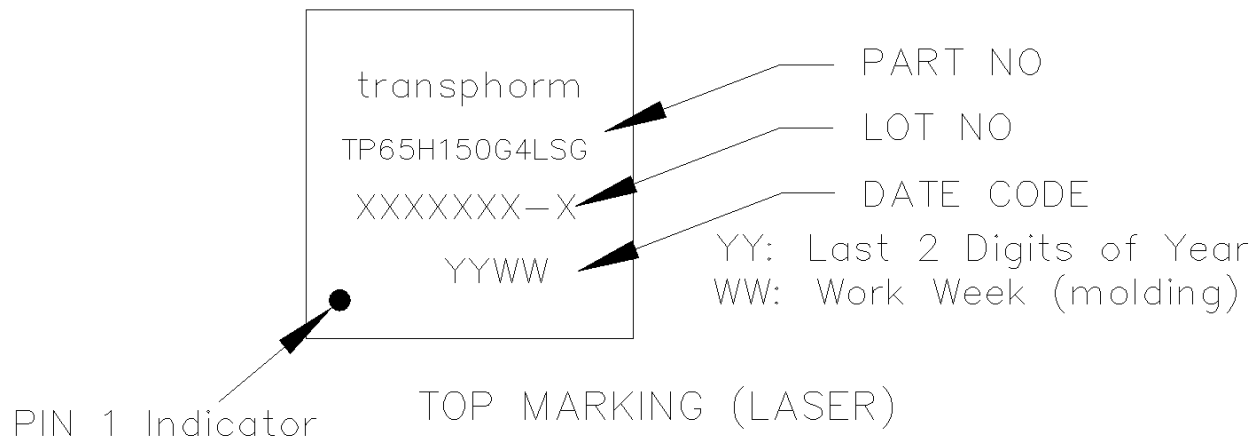
Dimensions are in millimeter (inches are in brackets for reference only)

# Application Note 0012

## Part VI: Package POD for Performance Version & Laser Marking Sample

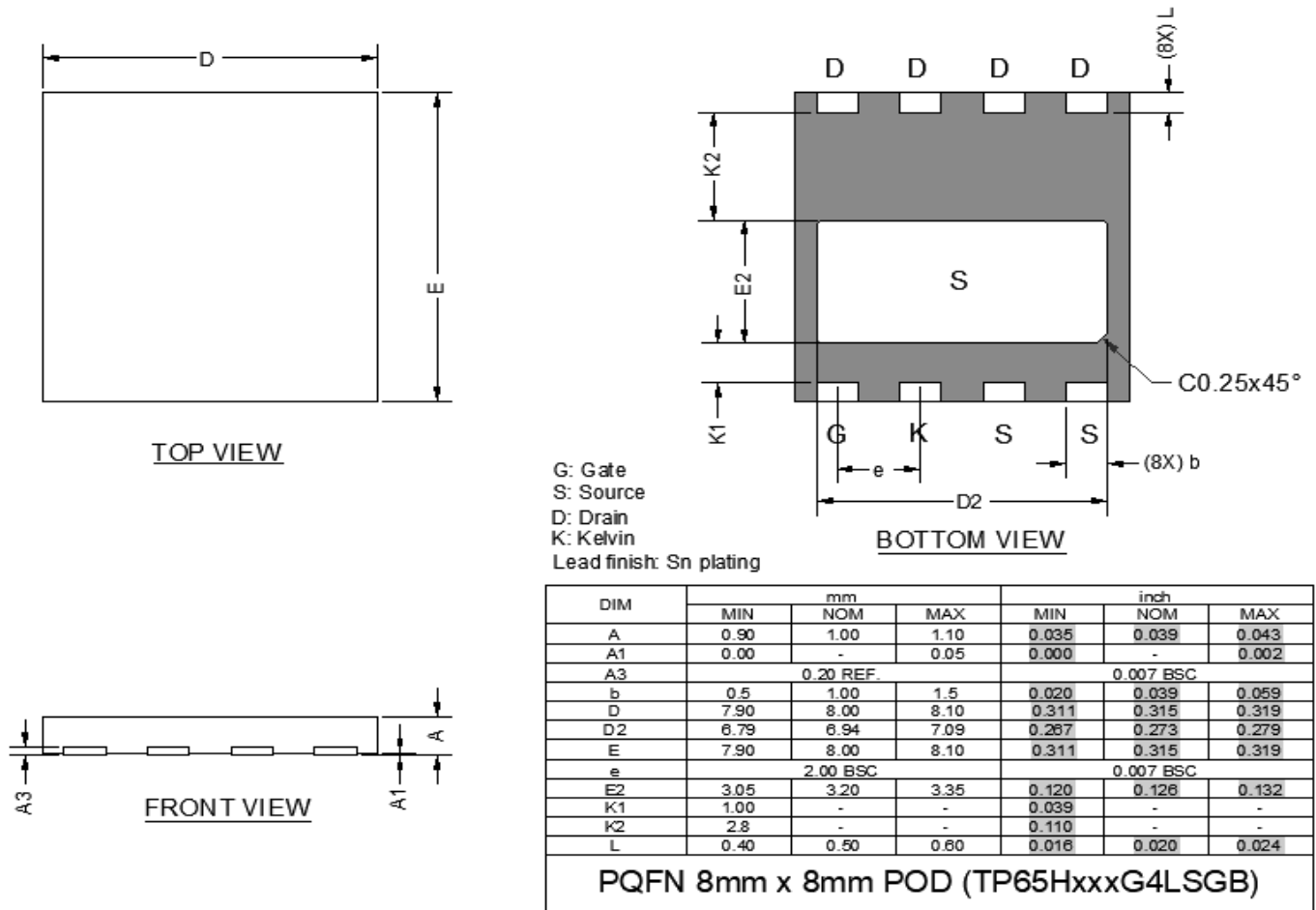


## Laser Marking Sample

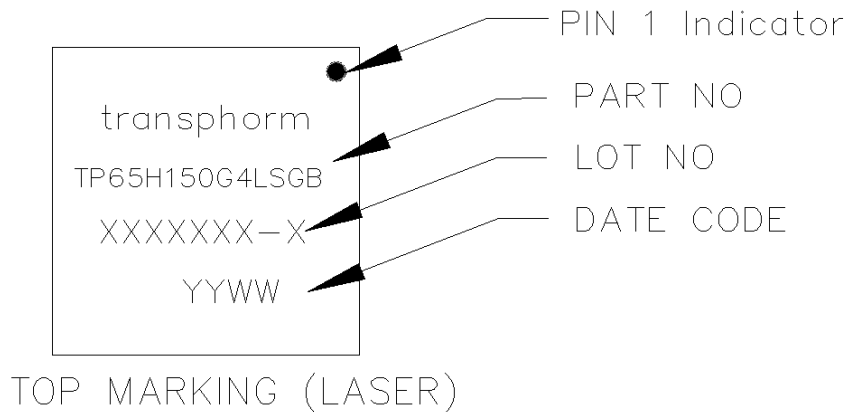


# Application Note 0012

## Part VII: Package POD for Industry Standard Version & Laser Marking



## Laser Marking Sample



# Application Note 0012

## Part VIII: Tape and Reel Packaging Information



### Tape and Reel Shielding Bag

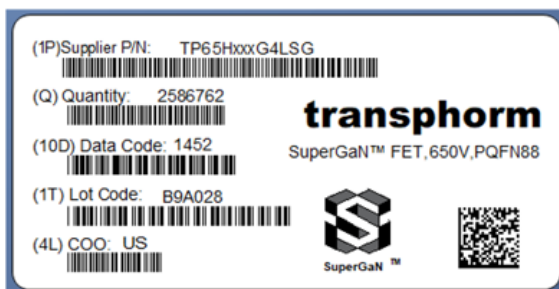
- 3,000units/reel
- Maximum 1 reel/box
- Place Tape and Reel inside moisture barrier bag
- Seal moisture bag

## Part IX: Internal Shipping Box Information



### Internal Shipping Box

- Tape internal box closed using ESD Label
- Place Internal Shipping Label



### Internal Shipping Box Label

**Supplier P/N:** Transphorm Part Number

**Quantity:** Quantity contained inside the box

**Date Code:** YYWW

**Lot Code:** Assembly Lot Number

**COO:** Country of Origin

**2D Barcode:** Above information encoded

# Application Note 0012

## Part X: External Shipping Box Information



### External Shipping Box

- Internal Shipping Boxes inside External Shipping Box
- Number of Internal Boxes ranges from 2 to 6
- Place External Shipping Label

### External Shipping Box Label

**From :** Transphorm shipping address

**To :** Customer name, Attention TO, and address number

**PO Number :** Customer Purchase Order Number

**Supplier Part Number :** Transphorm Part Number

**Quantity :** Total product quantity contain in external shipping box

**Package ID :** Transphorm Assigned Number

**Date Code:** YYWW

**Lot Code:** Assembly Lot Number

**COO:** Country of Origin

**2D Barcode:** Above information encoded

|                                                                                                                                        |                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>FROM:</b><br>Transphorm, Inc.<br>75 Castilian Drive<br>Goleta, CA 93117                                                             | <b>TO:</b><br>Customer Name<br><b>ATTN: Attention TO</b><br>Customer Address Line 1<br>Customer Address Line 2<br>City & Zip Code |
| <b>(K) PO Number:</b> Sample<br>                    |                                                                                                                                   |
| <b>(1P) Supplier Part Number:</b> TP65HboxG4LSG<br> |                                                                                                                                   |
| <b>(Q) Quantity:</b> 3000<br>                       |                                                                                                                                   |
| <b>(4S) Package ID:</b> SO-1288<br>                 |                                                                                                                                   |
| <b>(10D) Data Code:</b> 1452<br>                    | <b>(4L) COO:</b> US<br>                        |
| <b>(1T) Lot Code:</b> B9A028<br>                    |                                                                                                                                   |
| <br>SuperGaN™ FET, 650V, PQFN88                     |                                                                                                                                   |
|                                                     |                                                |

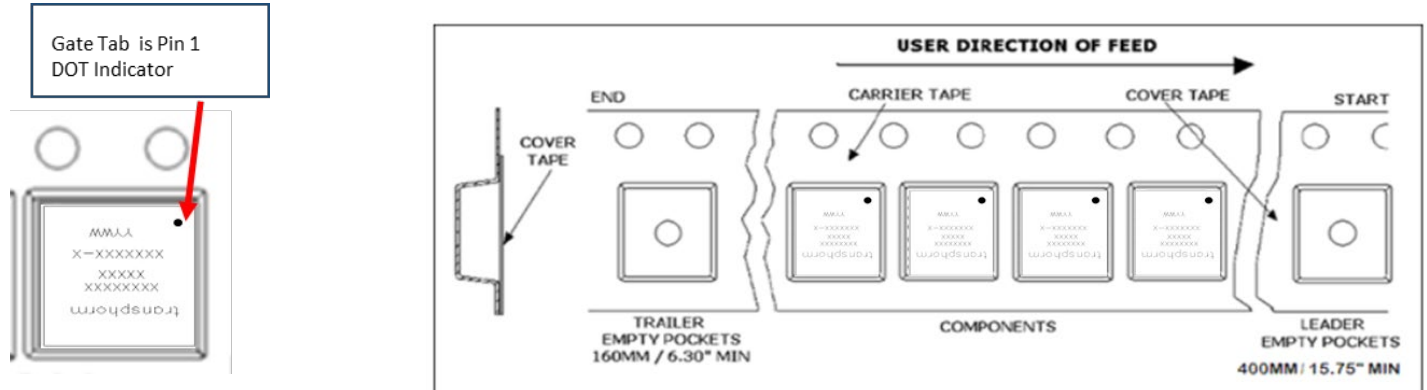
## Application Note 0012

| Shipping Box Size and Weight |           |                           |                                                               |                    |
|------------------------------|-----------|---------------------------|---------------------------------------------------------------|--------------------|
| Shipment                     | Units     | Weight                    | Size                                                          | Comments           |
| 1 box                        | 3,000pcs  | 3.13 (lbs)<br>1.42 (kgs)  |                                                               | FedEx Shipping box |
| 3 boxes                      | 9,000pcs  | 9.39 (lbs)<br>4.26 (kgs)  | 15.25 in x 13.5 in x 15.5 in<br>387.35 mm x 342.9mm x 393.7mm |                    |
| 4 boxes                      | 12,000pcs | 12.52 (lbs)<br>5.68 (kgs) | 15.25 in x 13.5 in x 15.5 in<br>387.35 mm x 342.9mm x 393.7mm |                    |
| 5 boxes                      | 15,000pcs | 15.65 (lbs)<br>7.10 (kgs) | 15.25 in x 13.5 in x 15.5 in<br>387.35 mm x 342.9mm x 393.7mm |                    |
| 6-boxes                      | 18,000pcs | 18.78 (lbs)<br>8.52 (kgs) | 15.25 in x 13.5 in x 15.5 in<br>387.35 mm x 342.9mm x 393.7mm |                    |

# Application Note 0012

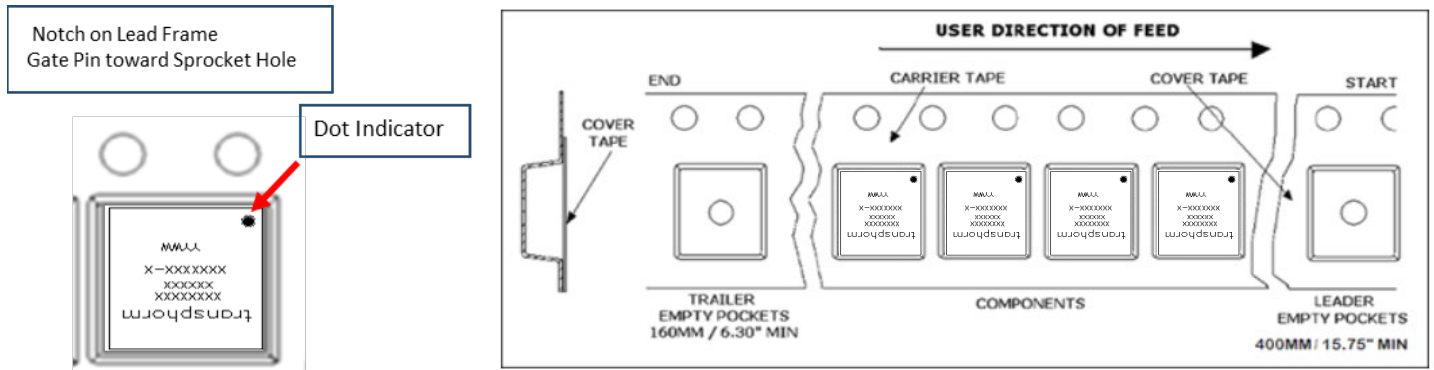
## 3. GEN IV 5X6mm PQFN TAPE & REEL INFORMATION

### Part I: Performance Product Orientation



- Leader Empty Pockets: 85
- Trailer Empty Pockets: 40
- Quantity per Reel: 4,000pcs

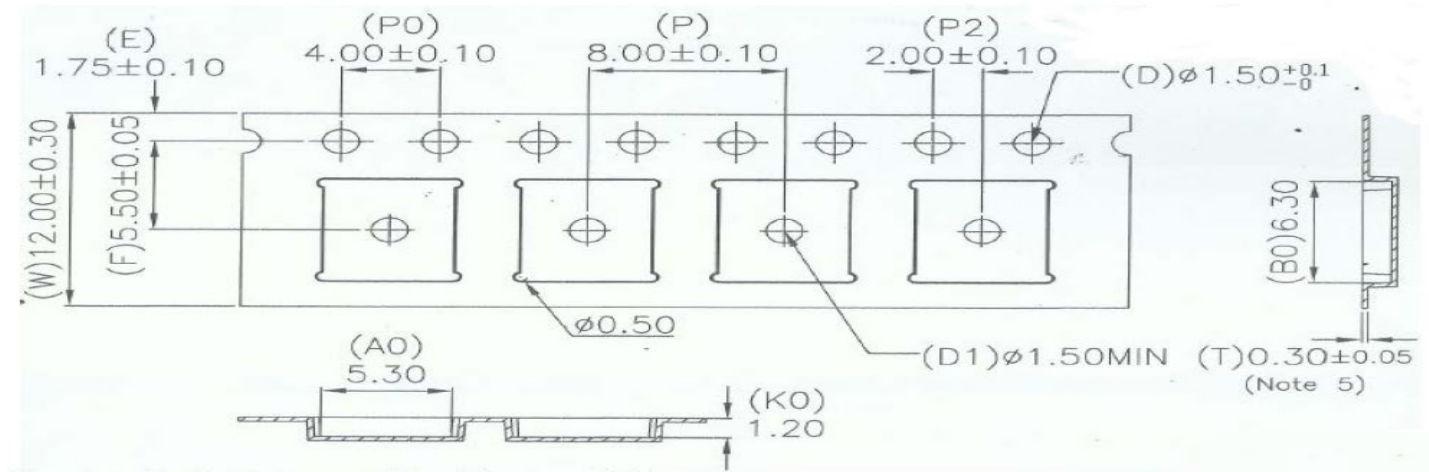
### Part II: Industry Standard Product Orientation



- Leader Empty Pockets: 85
- Trailer Empty Pockets: 40
- Quantity per Reel: 4,000pcs

# Application Note 0012

## Part III: Carrier Tape Dimension



Ao = 5.30

Bo = 6.30

Ko = 1.20

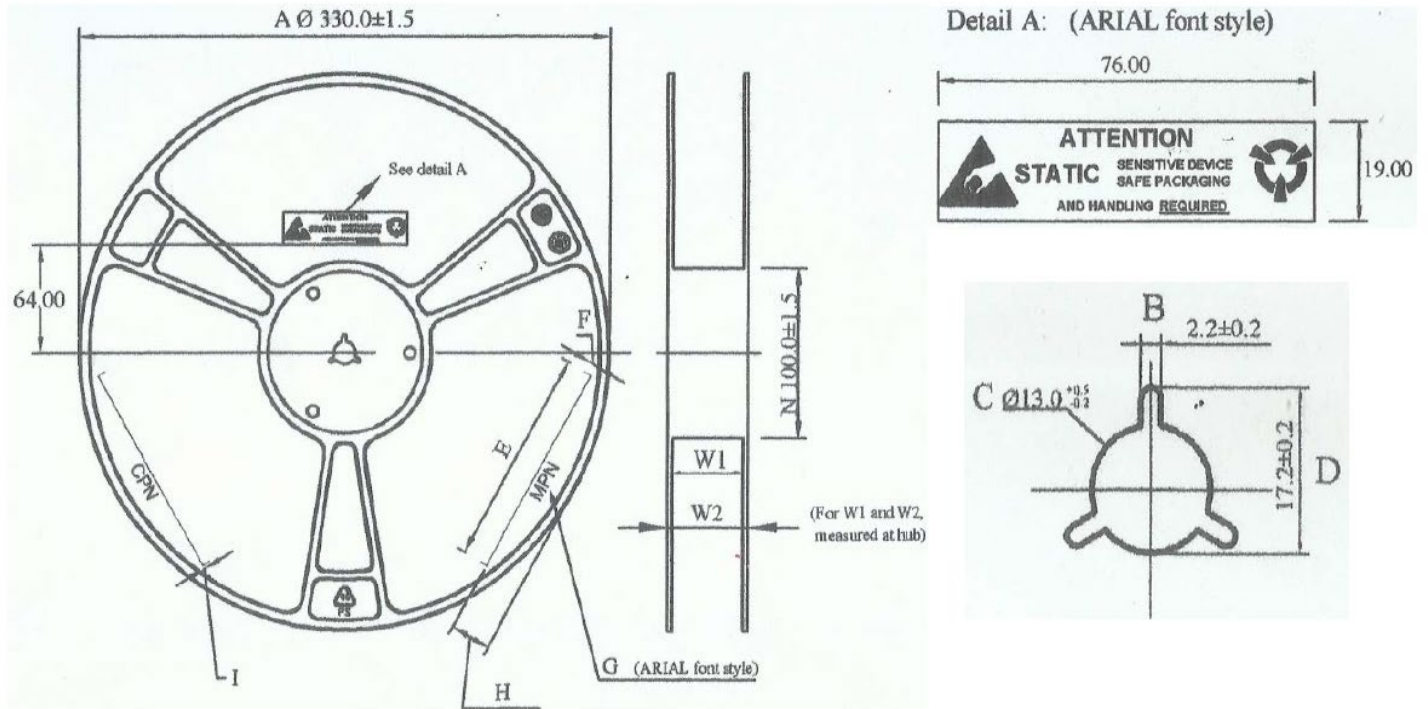
Notes:

- 10 Sprocket Hole pitch cumulative tolerance ±0.2
- Camber in compliance with EIA 481
- Pocket position relative to Sprocket Hole measured as true position of Pocket not Pocket Hole

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## Part IV: Reel Dimension

- Reel Size: 330mm

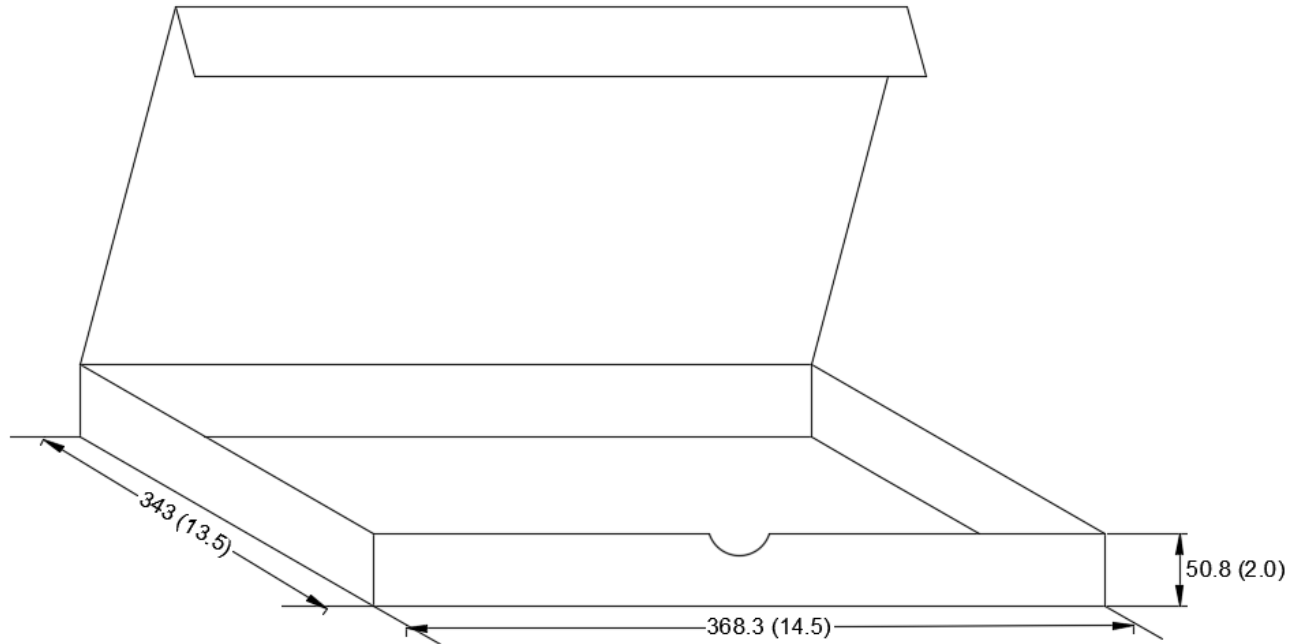


| PRODUCT NAME              | U-PAK P/N  | W1                                    | W2 (Max) | E             | F           | G           | H            | I             |
|---------------------------|------------|---------------------------------------|----------|---------------|-------------|-------------|--------------|---------------|
| 13" 100*12mm Plastic Reel | MUR-223-BX | 12.40 <sup>+2.0</sup> <sub>-0.8</sub> | 18.40    | 130 $\pm$ 1.0 | 5 $\pm$ 1.0 | 8 $\pm$ 1.0 | 25 $\pm$ 1.0 | 0.4 $\pm$ 0.5 |

Color based on customer requirement.  
Material: HIPS (High Impact Polystyrene)  
Need Ultrasonic Welding.  
Surface Resistance:  $10^9 \sim 10^{11} \Omega/\square$   
All dimensions in millimeters unless otherwise specified.  
Text with ARIAL font style.

# Application Note 0012

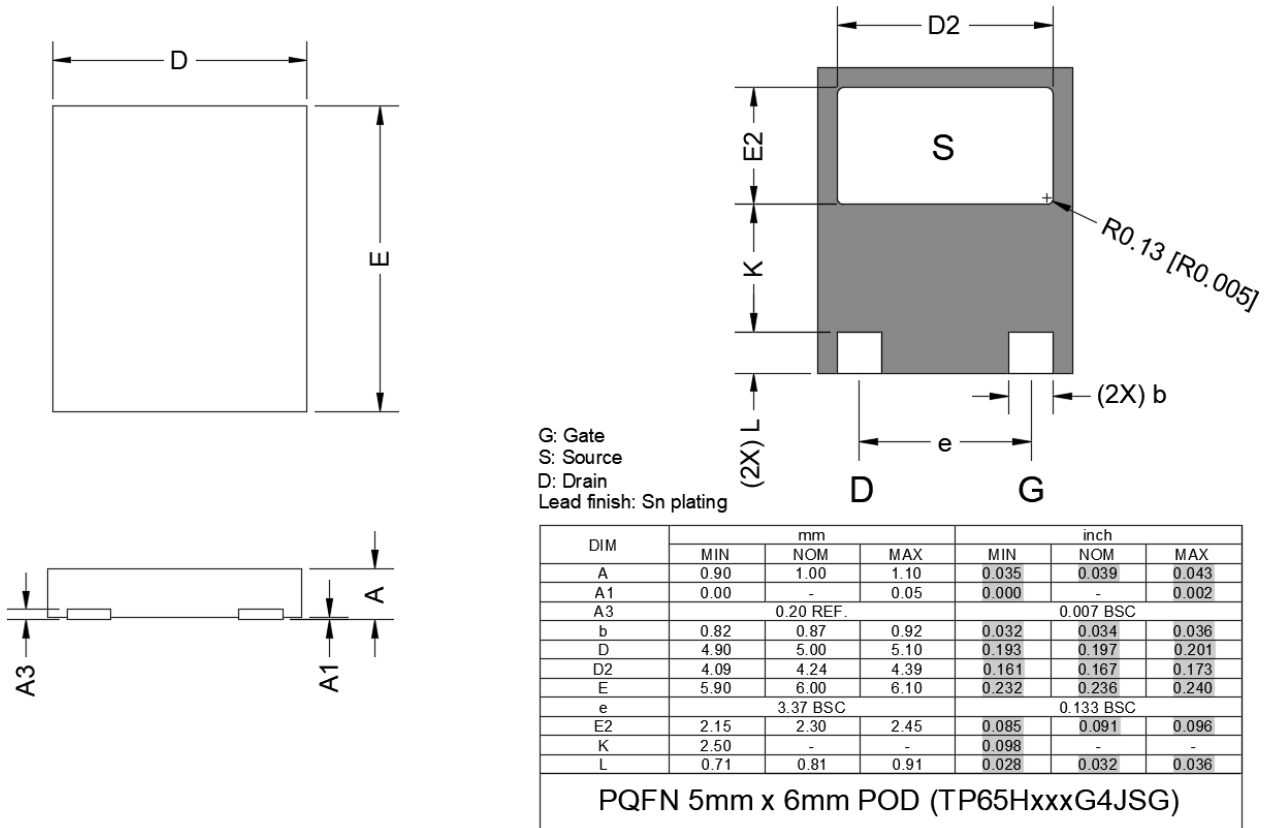
## Part V: Box Size



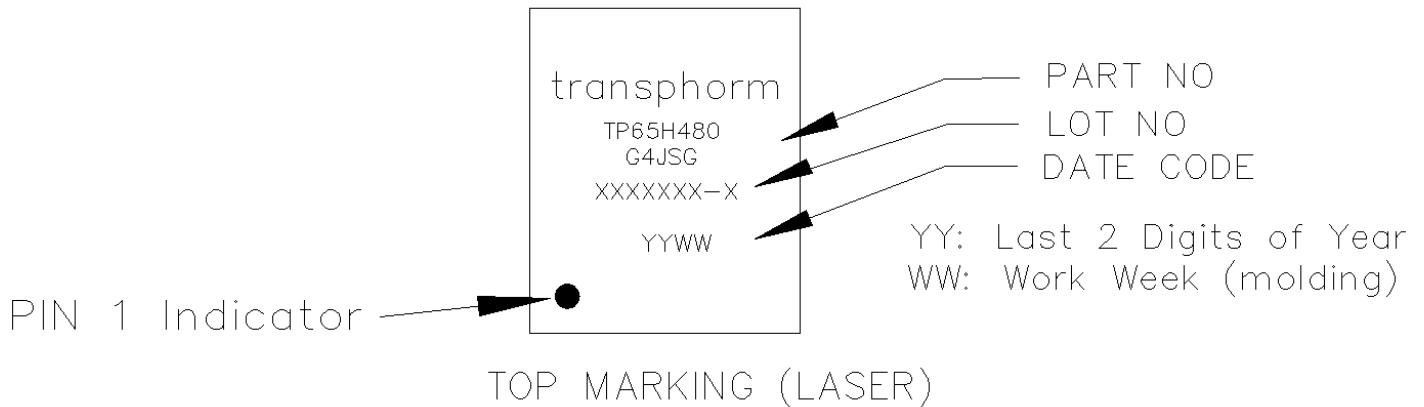
Dimensions are in millimeter (inches are in brackets for reference only)

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## Part VI: Package POD for Performance Version & Laser Marking Sample

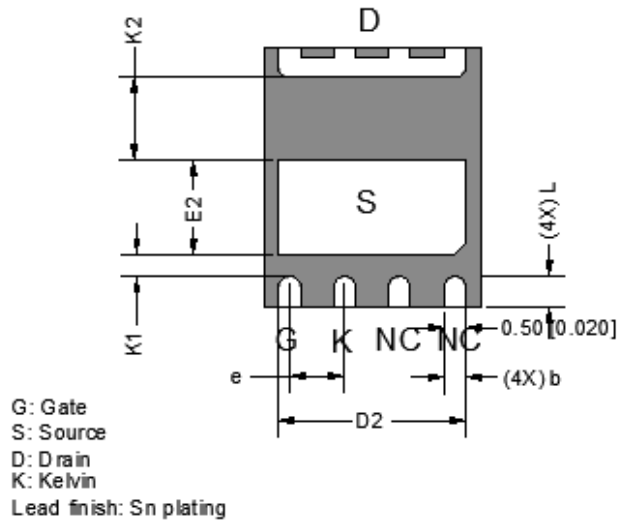
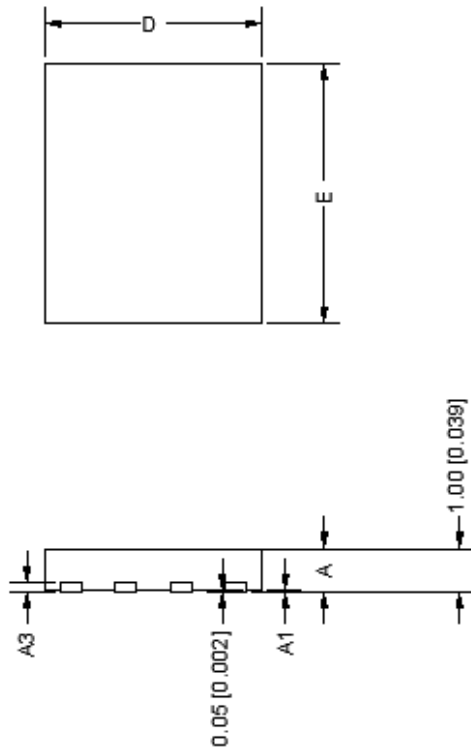


## Laser Marking Sample



# Application Note 0012

## Part VII: Package POD for Industry Standard LSGB Version & Laser Marking

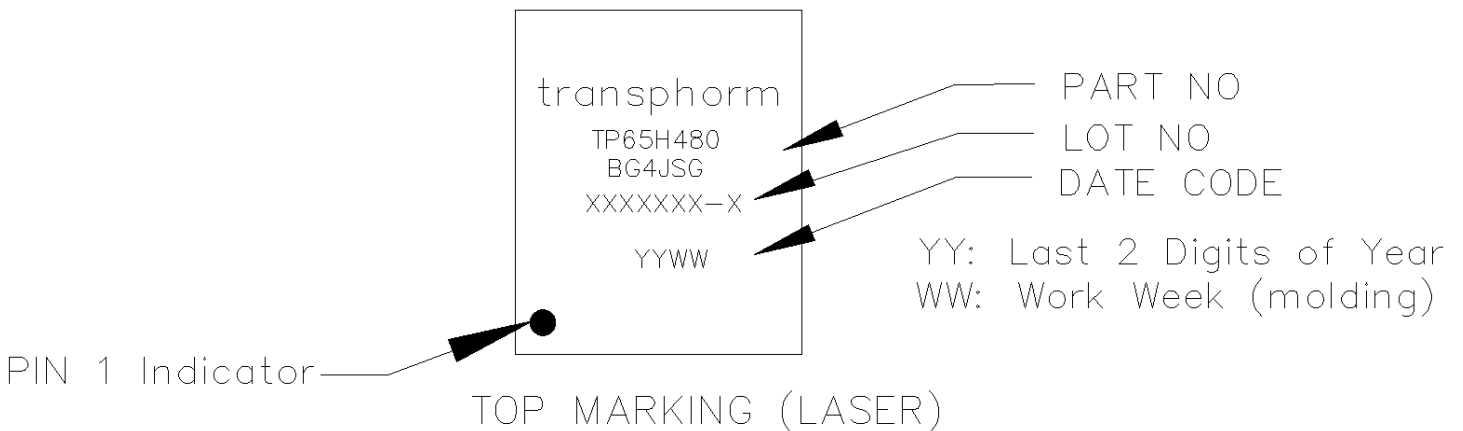


| DIM | mm        |      |      | inch      |       |       |
|-----|-----------|------|------|-----------|-------|-------|
|     | MIN       | NOM  | MAX  | MIN       | NOM   | MAX   |
| A   | 0.90      | 1.00 | 1.10 | 0.035     | 0.039 | 0.043 |
| A1  | 0.00      | -    | 0.05 | 0.000     | -     | 0.002 |
| A3  | 0.20 REF. |      |      | 0.007 BSC |       |       |
| b   | 0.45      | 0.50 | 0.55 | 0.018     | 0.020 | 0.022 |
| D   | 4.90      | 5.00 | 5.10 | 0.193     | 0.197 | 0.201 |
| D2  | 4.15      | 4.30 | 4.45 | 0.163     | 0.169 | 0.175 |
| E   | 5.90      | 6.00 | 6.10 | 0.232     | 0.236 | 0.240 |
| e   | 1.27 BSC  |      |      | 0.133 BSC |       |       |
| E2  | 2.05      | 2.20 | 2.35 | 0.081     | 0.087 | 0.093 |
| K1  | 0.50      | -    | -    | 0.020     | -     | -     |
| K2  | 1.90      | -    | -    | 0.075     | -     | -     |
| L   | 0.80      | 0.70 | 0.80 | 0.024     | 0.028 | 0.031 |

**PQFN 5mm x 6mm POD (TP65HxxxG4JSB)**

**Note: P/N TP65H150BG4JSB is following this exact POD**

## Laser Marking Sample



# Application Note 0012

## Part VIII: Tape and Reel Packing Information



### Tape and Reel Shielding Bag

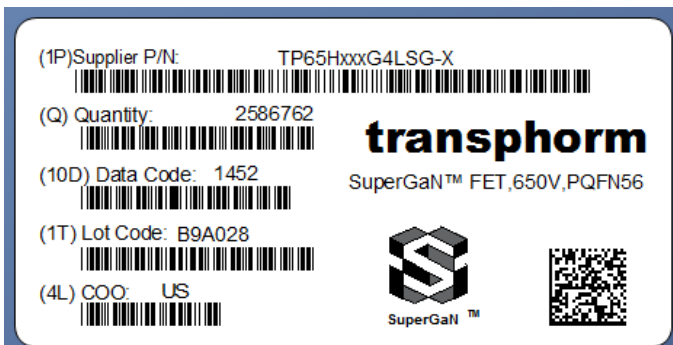
- 4,000units/reel
- Maximum 1 reel/box
- Place Tape and Reel inside moisture barrier bag
- Seal moisture bag

## Part IX: Internal Shipping Box Information



### Internal Shipping Box

- Tape internal box closed using ESD Label.
- Place Internal Shipping Label.



### Internal Shipping Box Label

**Supplier P/N:** Transphorm Part Number

**Quantity:** Quantity contained inside the box

**Date Code:** YYWW

**Lot Code:** Assembly Lot Number

**COO:** Country of Origin

**2D Barcode:** Above information encoded

# Application Note 0012

## Part X: External Shipping Box Information



### External Shipping Box

- Internal Shipping Boxes inside External Shipping Box
- Number of Internal Boxes ranges from 2 to 6
- Place External Shipping Label

### External Shipping Box Label

**From :** Transphorm shipping address

**To :** Customer name, Attention TO, and address number

**PO Number :** Customer Purchase Order Number

**Supplier Part Number :** Transphorm Part Number

**Quantity :** Total product quantity contain in external shipping box

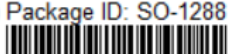
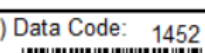
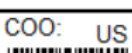
**Package ID :** Transphorm Assigned Number

**Date Code:** YYWW

**Lot Code:** Assembly Lot Number

**COO:** Country of Origin

**2D Barcode:** Above information encoded

|                                                                                                                                                                                                                                                                      |                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>FROM:</b><br>Transphorm, Inc.<br>75 Castilian Drive<br>Goleta, CA 93117                                                                                                                                                                                           | <b>TO:</b><br>Customer Name<br><b>ATTN: Attention TO</b><br>Customer Address Line 1<br>Customer Address Line 2<br>City & Zip Code |
| <b>(K) PO Number:</b> Sample<br>                                                                                                                                                  |                                                                                                                                   |
| <b>(1P) Supplier Part Number:</b> TP65HxxxG4JSG<br>                                                                                                                               |                                                                                                                                   |
| <b>(Q) Quantity:</b> 4000<br>                                                                                                                                                     |                                                                                                                                   |
| <b>(4S) Package ID:</b> SO-1288<br>                                                                                                                                               |                                                                                                                                   |
| <b>(10D) Data Code:</b> 1452<br>                                                                                                                                                  | <b>(4L) COO:</b> US<br>                        |
| <b>(1T) Lot Code:</b> B9A028<br>                                                                                                                                                  |                                                                                                                                   |
| <div></div> |                                                                                                                                   |

## Application Note 0012

| Shipping Box Size and Weight |           |                           |                                                               |                    |
|------------------------------|-----------|---------------------------|---------------------------------------------------------------|--------------------|
| Shipment                     | Units     | Weight                    | Size                                                          | Comments           |
| 1 box                        | 4,000pcs  | 2.47 (lbs)<br>1.12 (kgs)  |                                                               | FedEx Shipping box |
| 3 boxes                      | 12,000pcs | 7.41 (lbs)<br>3.36 (kgs)  | 15.25 in x 13.5 in x 15.5 in<br>387.35 mm x 342.9mm x 393.7mm |                    |
| 4 boxes                      | 16,000pcs | 9.88 (lbs)<br>4.48 (kgs)  | 15.25 in x 13.5 in x 15.5 in<br>387.35 mm x 342.9mm x 393.7mm |                    |
| 5 boxes                      | 20,000pcs | 12.35 (lbs)<br>5.60 (kgs) | 15.25 in x 13.5 in x 15.5 in<br>387.35 mm x 342.9mm x 393.7mm |                    |
| 6-boxes                      | 24,000pcs | 14.82 (lbs)<br>6.72 (kgs) | 15.25 in x 13.5 in x 15.5 in<br>387.35 mm x 342.9mm x 393.7mm |                    |

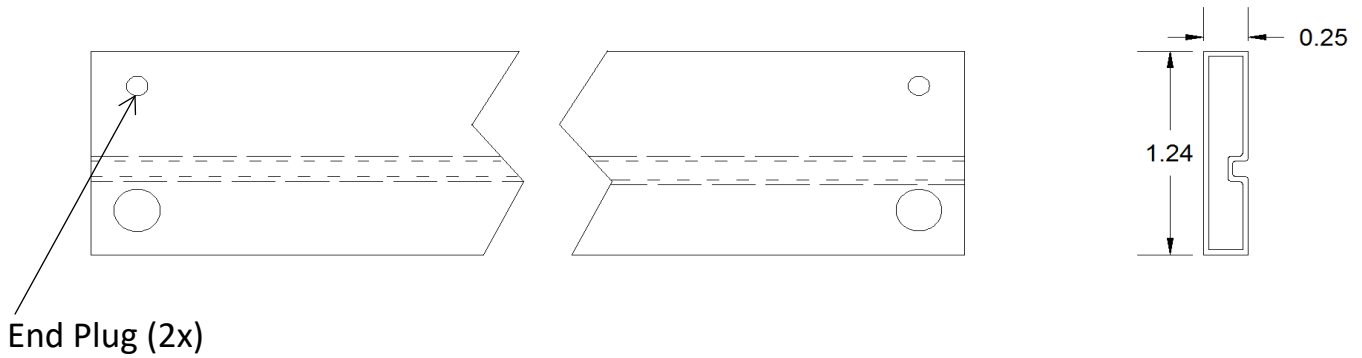
# Application Note 0012

## 4. T0-220 Shipping Information

### Part I: Shipping Tube

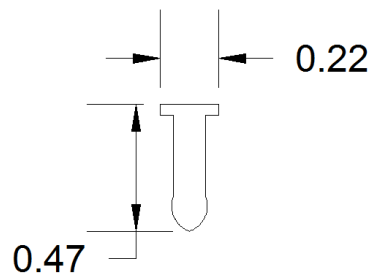
#### Tubes

Length = 21 Inches



#### End Plug

Color = Black

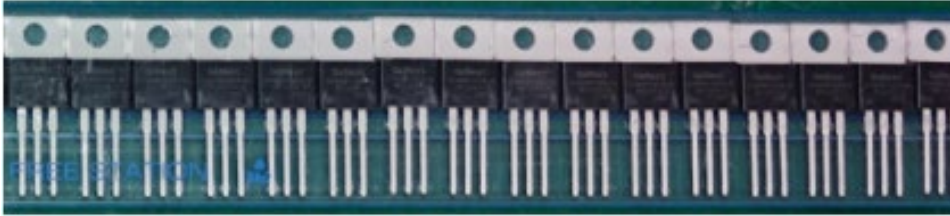


# Application Note 0012

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## Part II: Tube Quantity

- 50 units per tube.

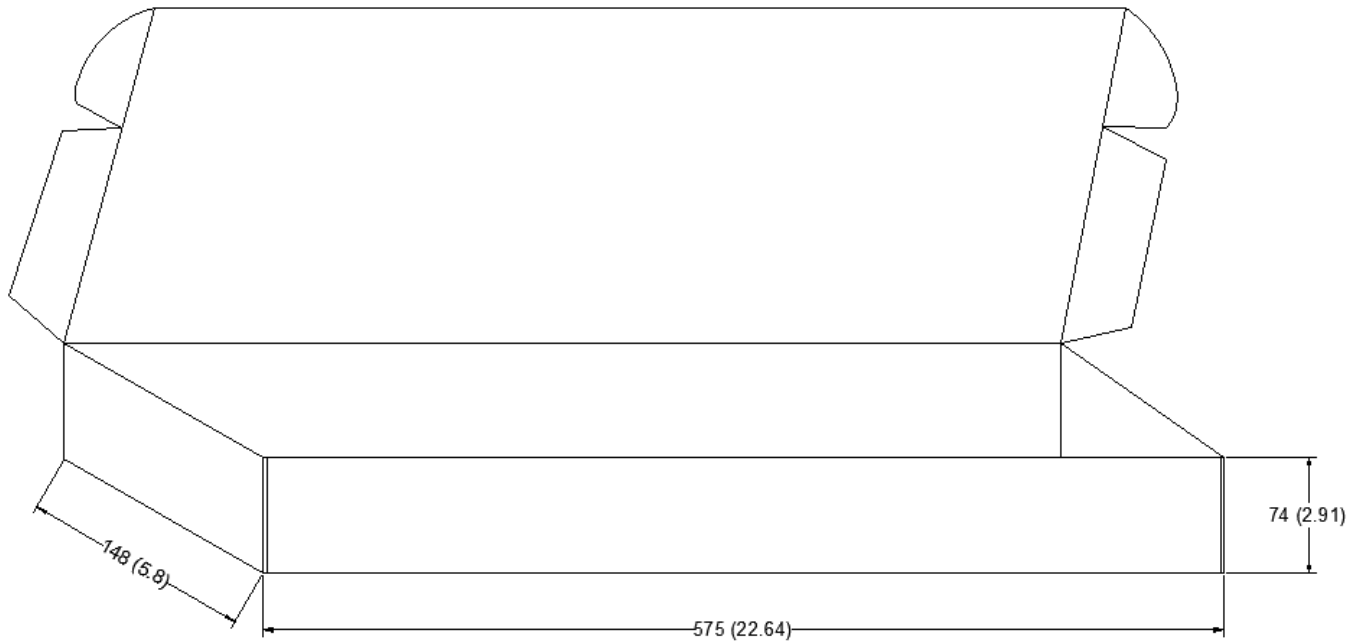


- Maximum tube per anti-static shielding bag and inner box is 20 tubes or 1000 units per inner box.



# Application Note 0012

## Part III: Box Size

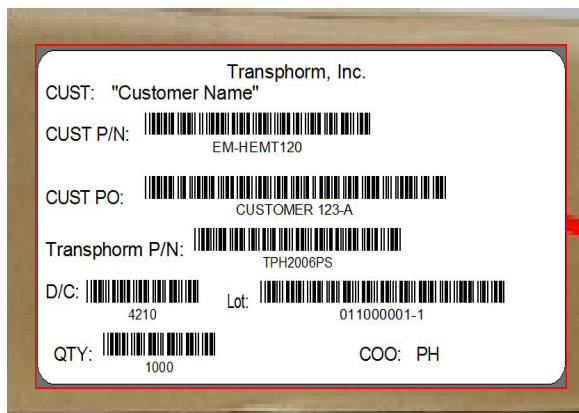


Dimensions are in millimeter (inches are in brackets for reference only)

## Part IV: Internal Shipping Box Information

### Internal Shipping Box

- Tape internal box closed using ESD Label.
- Place Internal Shipping Label.



# Application Note 0012

## Internal Shipping Box Label

|                       |                |
|-----------------------|----------------|
| Transphorm, Inc.      |                |
| CUST: "Customer Name" |                |
| CUST P/N:             | EM-HENT120     |
| CUST PO:              | CUSTOMER 123-A |
| Transphorm P/N:       | TPH2006PS      |
| D/C:                  | 4210           |
| Lot:                  | 011000001-1    |
| QTY:                  | 1000           |
| COO:                  | PH             |

### Description:

Size: 4" x 2"

CUST: "Customer Name"

CUST P/N: "Customer Part Number"

Transphorm P/N: "Transphorm Part Number"

D/C: "Date Code"

QTY: "Quantity unit contained in inner box"

COO: "Country of Origin"

## Part V: External Shipping Box Information

### External Shipping Box

- Bubble sheets on bottom and on both sides of the master box then place 6 inner boxes inside the master box.
- For 4 inner boxes or less, use small master box.
- Master box shipping label as shown below and seal the master box following the standard operating procedure.



|                                                                                                       |                                                |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------|
| From: Transphorm, Inc.<br>115 Canby Drive<br>Galesburg, CA 93117                                      |                                                |
| To: Customer Name<br>Customer Address Line 1<br>Customer Address Line 2<br>City & ZIP Code<br>Country |                                                |
| ATTN: Customer Attention TO<br>Customer ATTN TO phone number                                          |                                                |
| Customer PO: CUSTOMER 123-A                                                                           |                                                |
| Customer P/N: EM-HENT120                                                                              |                                                |
| Quantity: 1000                                                                                        |                                                |
| Transphorm P/N: TPH2006PS                                                                             |                                                |
| Country of Origin: PH                                                                                 |                                                |
| Package Count: 1 of 1                                                                                 | Package Weight: 1.1 lbs / 0.5 kg               |
| PHD Ship: 100001<br>Invoice: 2100006<br>Customer: Customer Name                                       | Tracking: 7342 3456 9012<br>Ship Date: 1/15/11 |

# Application Note 0012

## External Shipping Box Label

|                                                                                                                                                                                     |                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>From:</b> Transphorm, Inc.<br>115 Castilian Drive<br>Goleta, CA 93117                                                                                                            |                                     |
| <b>To:</b><br>Customer Name<br>Customer Address Line 1<br>Customer Address Line 2<br>City & ZIP Code<br>Country<br><br>ATTN: Customer Attention TO<br>Customer ATTN TO phone number |                                     |
| Customer PO:<br><br>CUSTOMER 123-A                                                                 |                                     |
| Customer P/N:<br><br>EM-HEMT120                                                                    |                                     |
| Quantity:<br><br>1000                                                                              |                                     |
| Transphorm P/N:<br><br>TPH2006PS                                                                   |                                     |
| Country of Origin<br>PH                                                                                                                                                             |                                     |
| Package Count<br>x of x                                                                                                                                                             | Package Weight<br>x.x lbs / x.xx kg |
| PKG Slip: 100007<br>Invoice: S100008<br>Customer: Customer Name                                                                                                                     |                                     |
| Tracking: 7342 3458 9572<br>Ship Date: 1/15/11                                                                                                                                      |                                     |

### Description:

**Size:** 4" x 6"

**From:** Transphorm Shipping address

**To:** Customer name, address attention to and phone number

**Customer PO:** Customer Purchase Order Number

**Customer P/N:** Customer Part Number

**Quantity:** Total product quantity contains in external shipping box

**Transphorm P/N:** Transphorm Product Number

**Country of Origin:** Country of Origin where product was manufactured.

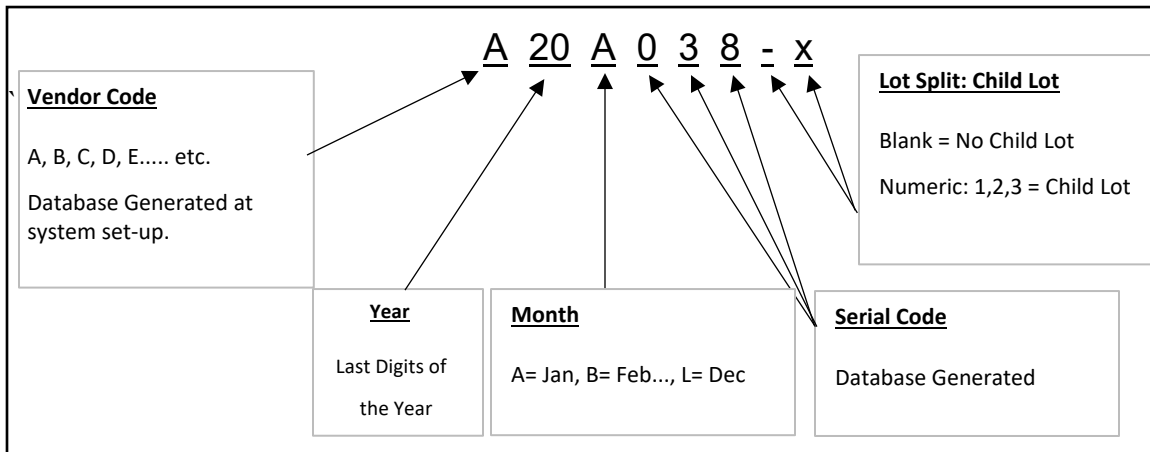
**Package Count:** Number of External Shipping boxes contained in shipment

**Package Weight:** Weight of packed External Shipping Box

## Application Note 0012

| Shipment | Units   | Weight                   | Size                                                | Comments                         |
|----------|---------|--------------------------|-----------------------------------------------------|----------------------------------|
| 1pack    | 1000pcs | 2.99 (kgs)<br>6.61(lb)   | 575mm X 140mm X 73mm<br>22.6 in x 5.51in x 2.87 in  | one inner box                    |
| 2packs   | 2000pcs | 6.7 (kgs)<br>14.77(lb)   | 610mm x 310mm x 190mm<br>24 in x 12.2 in x 7.5 in   | master box with two inner boxes  |
| 4packs   | 4000pcs | 12.25 (kgs)<br>27.00(lb) | 610mm x 310mm x 190mm<br>24 in x 12.2 in x 7.5 in   | master box with four inner boxes |
| 6packs   | 6000pcs | 18.24 (kgs)<br>40.21(lb) | 610mm x 310 mm x 340mm<br>24 in x 12.2 in x 13.4 in | master box with six inner boxes  |

### Part VI: Assembly Lot Number Information

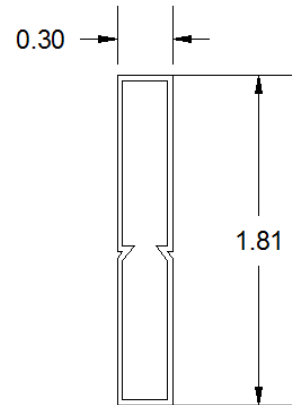
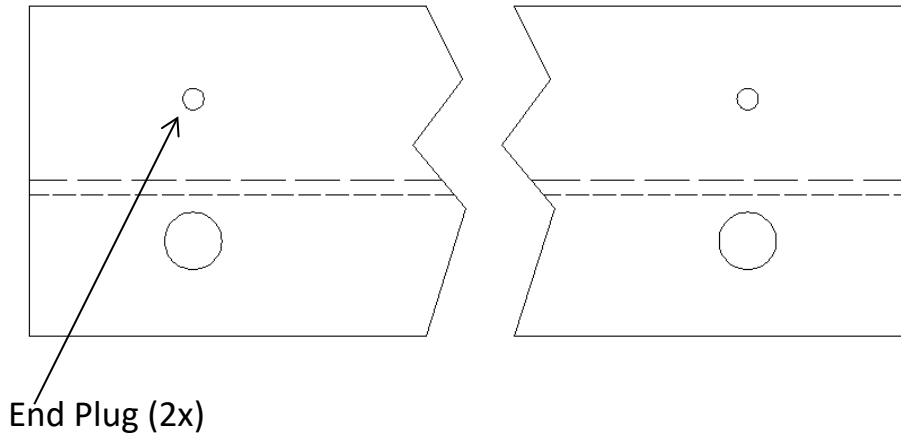


## 5. T0-247 Shipping Information

### Part I: Shipping Tube

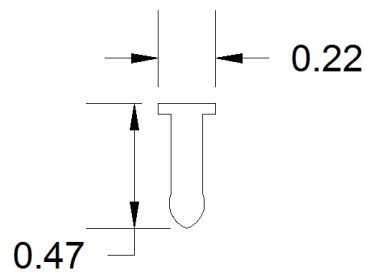
## Tubes

Length = 21 Inches



## End Plug

Color = Black



# Application Note 0012

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## Part II: Tube Quantity

- 30 units per tube.



- Maximum tube per anti-static shielding bag and inner box is 15 tubes or 450 units per inner box.



# Application Note 0012

## Part III: Box Size

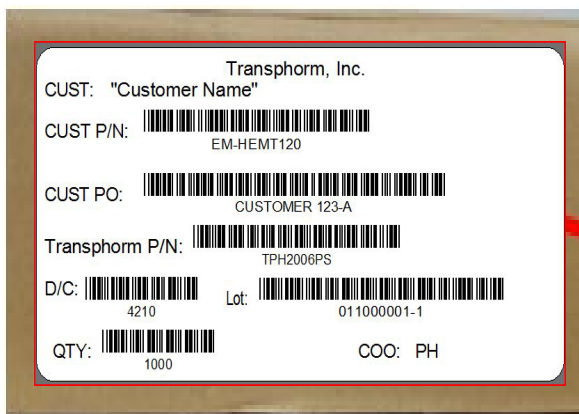


Dimensions are in millimeter (inches are in brackets for reference only)

## Part IV: Internal Shipping Box Information

### Internal Shipping Box

- Tape internal box closed using ESD Label.
- Place Internal Shipping Label.



## Part V: External Shipping Box Information

# Application Note 0012

## External Shipping Box

- Bubble sheets on bottom and on both sides of the master box then place 6 inner boxes inside the master box.
- For 4 inner boxes or less, use small master box.
- Master box shipping label as shown below and seal the master box following the standard operating procedure.



|                                                                                                                       |                                     |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>From:</b> Transphorm, Inc.<br>115 Castilian Drive<br>Golds, CA 93117                                               |                                     |
| <b>To:</b><br>Customer Name<br>Customer Address Line 1<br>Customer Address Line 2<br>City & ZIP Code<br>Country       |                                     |
| ATTN: Customer Attention TO<br>Customer A1119 10 phone number                                                         |                                     |
| Customer PO: <br>CUSTOMER1234      |                                     |
| Customer PIN: <br>EMHEMT123        |                                     |
| Quantity: <br>500                  |                                     |
| Transphorm P/N: <br>17400075       |                                     |
| Country of Origin<br>PH                                                                                               |                                     |
| Package Count<br>x of x                                                                                               | Package Weight<br>x.x lbs / x.xx kg |
| Pkg Slip: 100001      Tracking: 7342 3456 9072<br>Invoice: 0100008      Ship Date: 1/15/17<br>Customer: Customer Name |                                     |

# Application Note 0012

## External Shipping Box Label

|                                                                                                                                                                                     |                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>From:</b> Transphorm, Inc.<br>115 Castilian Drive<br>Goleta, CA 93117                                                                                                            |                                     |
| <b>To:</b><br>Customer Name<br>Customer Address Line 1<br>Customer Address Line 2<br>City & ZIP Code<br>Country<br><br>ATTN: Customer Attention TO<br>Customer ATTN TO phone number |                                     |
| Customer PO:<br><br>CUSTOMER 123-A                                                                 |                                     |
| Customer P/N:<br><br>EM-HEMT120                                                                    |                                     |
| Quantity:<br><br>1000                                                                              |                                     |
| Transphorm P/N:<br><br>TPH2006PS                                                                   |                                     |
| Country of Origin<br>PH                                                                                                                                                             |                                     |
| Package Count<br>x of x                                                                                                                                                             | Package Weight<br>x.x lbs / x.xx kg |
| PKG Slip: 100007<br>Invoice: S100008<br>Customer: Customer Name                                                                                                                     |                                     |
| Tracking: 7342 3458 9572<br>Ship Date: 1/15/11                                                                                                                                      |                                     |

### Description:

**Size:** 4" x 6"

**From:** Transphorm Shipping address

**To:** Customer name, address attention to and phone number

**Customer PO:** Customer Purchase Order Number

**Customer P/N:** Customer Part Number

**Quantity:** Total product quantity contains in external shipping box

**Transphorm P/N:** Transphorm Product Number

**Country of Origin:** Country of Origin where product was manufactured.

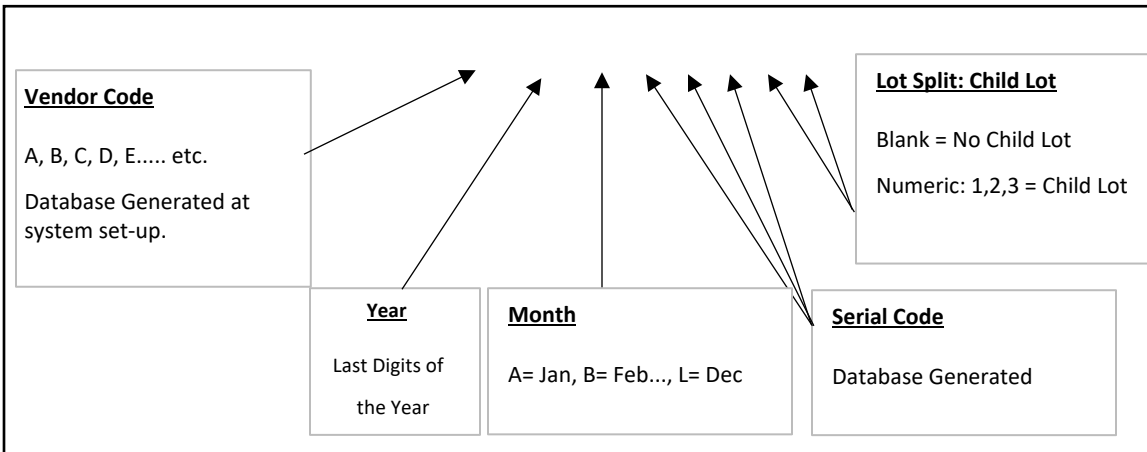
**Package Count:** Number of External Shipping boxes contained in shipment

**Package Weight:** Weight of packed External Shipping Box

# Application Note 0012

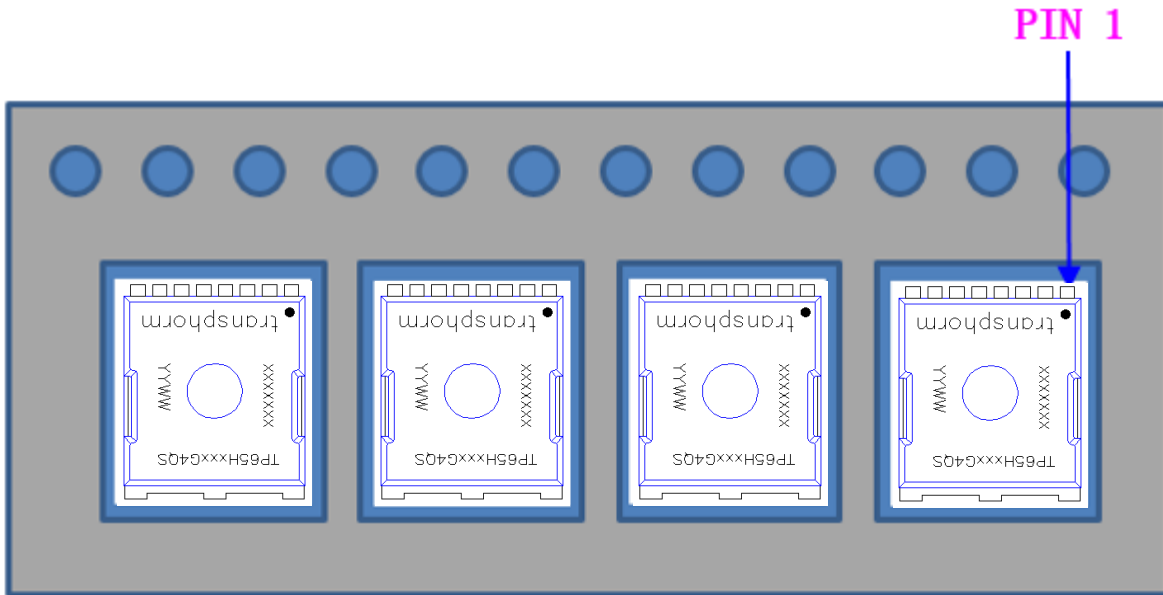
| Shipment | Units    | Weight                   | Size                                                | Comments                         |
|----------|----------|--------------------------|-----------------------------------------------------|----------------------------------|
| 1pack    | 450pcs   | 3.90 (kgs)<br>8.60(lb)   | 575mm X 140mm X 73mm<br>22.6 in x 5.51in x 2.87 in  | one inner box                    |
| 2packs   | 900pcs   | 8.05 (kgs)<br>17.75(lb)  | 610mm x 310mm x 190mm<br>24 in x 12.2 in x 7.5 in   | master box with two inner boxes  |
| 4packs   | 1,800pcs | 15.85 (kgs)<br>34.95(lb) | 610mm x 310mm x 190mm<br>24 in x 12.2 in x 7.5 in   | master box with four inner boxes |
| 6packs   | 2,700pcs | 23.65 (kgs)<br>52.15(lb) | 610mm x 310 mm x 340mm<br>24 in x 12.2 in x 13.4 in | master box with six inner boxes  |

## Part VI: Assembly Lot Number Information



## 6. TOLL TAPE & REEL INFORMATION

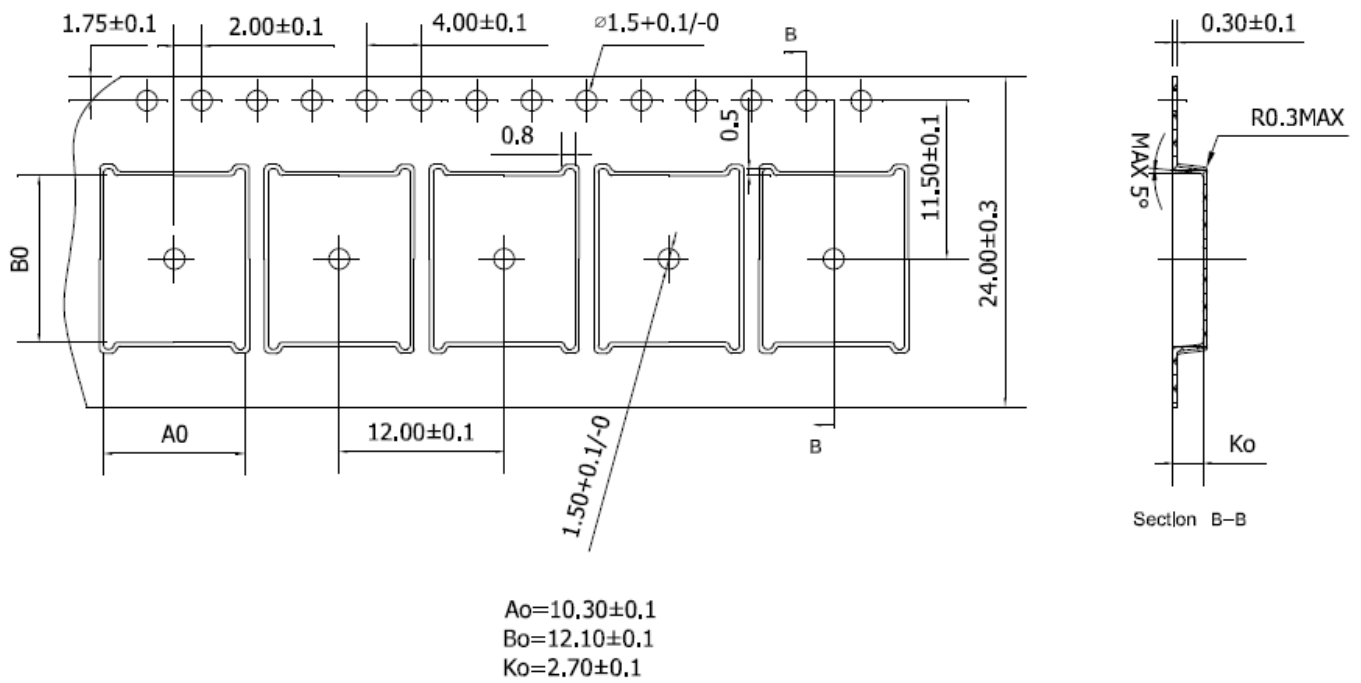
### Part I: Product Orientation



- -Leader Empty Pockets: 400mm / 35 empty pocket
- -Trailer Empty Pockets: 160mm / 15 empty pocket
- -Quantity per Reel: 2,000pcs

# Application Note 0012

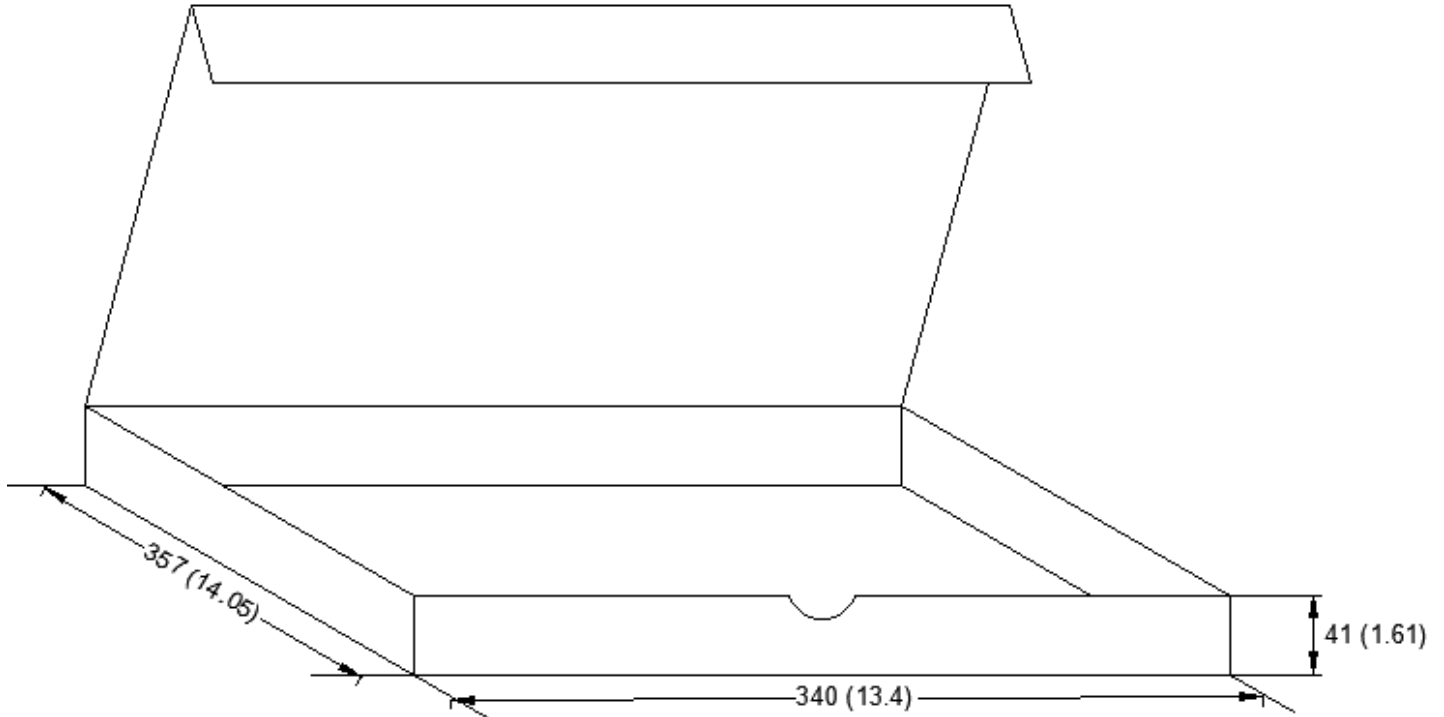
## Part II: Carrier Tape Dimension





# Application Note 0012

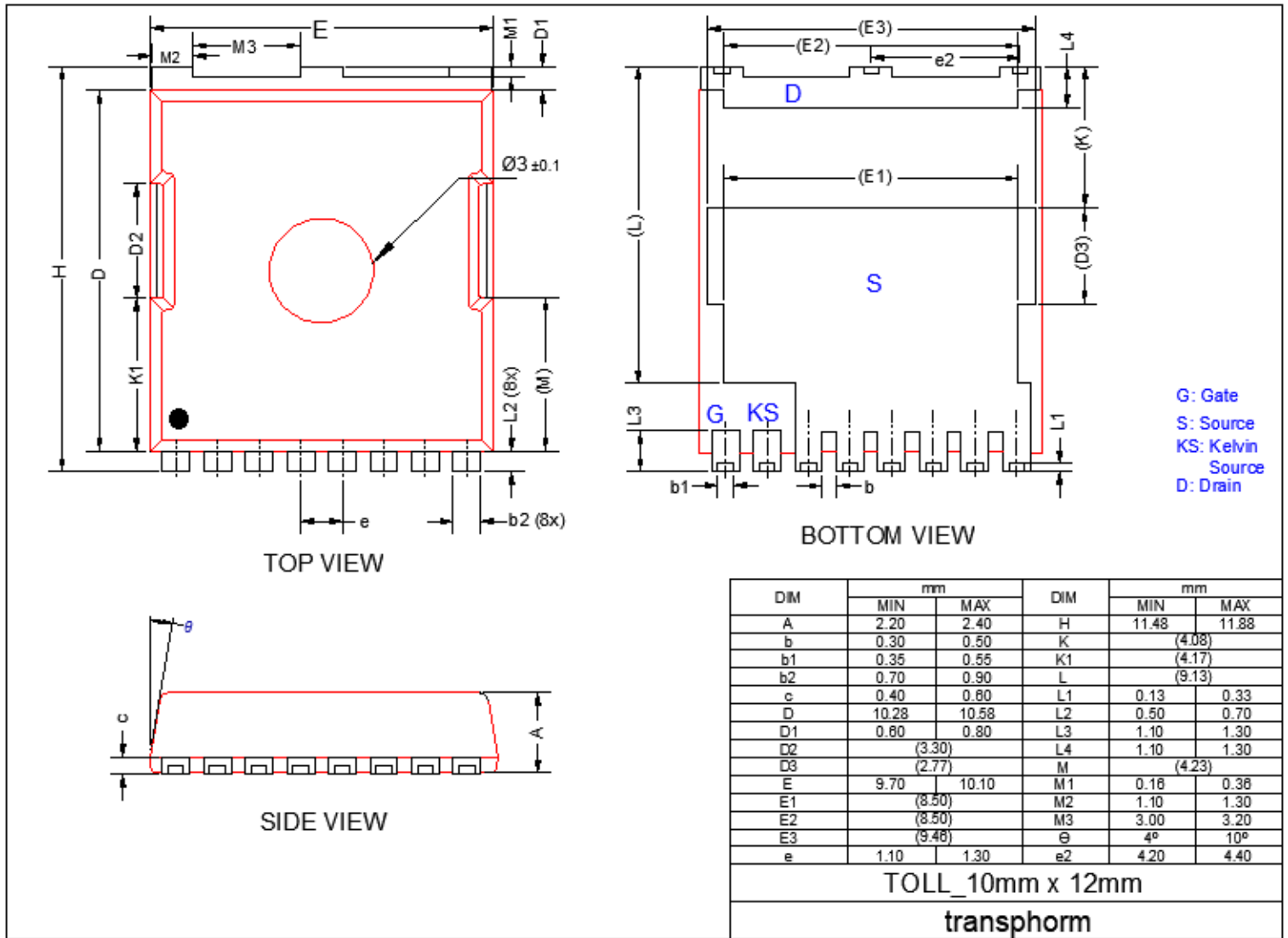
## Part IV: Box Dimension



Dimensions are in millimeter (inches are in brackets for reference only)

# Application Note 0012

## Part V: Package POD



# Application Note 0012

## Part VI: Tape and Reel Packing Information



### Tape and Reel Shielding Bag

- 2,000 units / reel

Maximum 1 reel / box

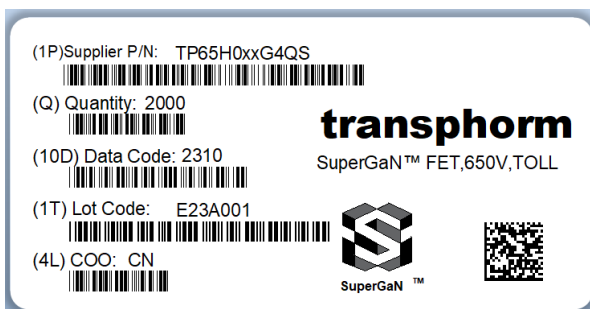
- Place Tape and Reel inside moisture barrier bag
- Seal moisture bag

## Part VII: Internal Shipping Box Information



### Internal Shipping Box

- Tape internal box closed
- Place Internal Shipping Label



### Internal Shipping Box Label

**Supplier P/N:** Transphorm Part Number

**Quantity:** Quantity contained inside the box

**Date Code:** YYWW

**Lot Code:** Assembly Lot Number

**COO:** Country of Origin

**2D Barcode:** Above information encoded

# Application Note 0012

## Part VIII: External Shipping Box Information



### External Shipping Box

- Internal Shipping Boxes inside External Shipping Box
- Number of Internal Boxes ranges from 2 to 4
- Place External Shipping Label

|                                                                                                                                                                                                                                                             |                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>FROM:</b><br>Transphorm, Inc.<br>75 Castilian Drive<br>Goleta, CA 93117                                                                                                                                                                                  | <b>TO:</b><br>Customer Name<br><b>ATTN: Attention TO</b><br>Customer Address Line 1<br>Customer Address Line 2<br>City & Zip Code |
| (K) PO Number: Sample<br>                                                                                                                                                |                                                                                                                                   |
| (1P) Supplier Part Number: TP65H0xxG4QS<br>                                                                                                                              |                                                                                                                                   |
| (Q) Quantity: 2000<br>                                                                                                                                                   |                                                                                                                                   |
| (4S) Package ID: SO-1288<br>                                                                                                                                             |                                                                                                                                   |
| (10D) Data Code: 2310<br>                                                                                                                                                | (4L) COO: CN<br>                               |
| (1T) Lot Code: E23A001<br>                                                                                                                                               |                                                                                                                                   |
|    |                                                                                                                                   |

### External Shipping Box Label

- **From:** Transphorm shipping address
- **To:** Customer name, Attention TO, and address number
- **PO Number:** Customer Purchase Order Number
- **Supplier Part Number:** Transphorm Part Number
- **Quantity:** Total product quantity contain in external shipping box
- **Package ID:** Transphorm Assigned Number
- **Date Code:** YYWW
- **Lot Code:** Assembly Lot Number
- **COO:** Country of Origin
- **2D Barcode:** Above information encoded

# Application Note 0012

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