

## Taping of Diodes

### AXIAL LEAD COMPONENTS

Diodes and rectifiers with axial leads are normally delivered in taped form according to IEC 286-1 (see figure 1). The cathode side is designated by a colored tape. Taped

devices are normally delivered in ammo boxes (ammo pack). Delivery on reels is available on request. Quantities per box dimensions 264 (L) x 146 (H) x 73 (W).

| PACKAGE                 | AVAILABLE PACKAGING |                   |              |
|-------------------------|---------------------|-------------------|--------------|
|                         | 10" TAPE AND REEL   | 14" TAPE AND REEL | AMMO PACK #1 |
|                         | QUANTITY/REEL       | QUANTITY/REEL     | QUANTITY/BOX |
| SOD-57                  | 5000                |                   | 5000         |
| SOD-64                  | 2500                |                   | 2500         |
| DO-35                   |                     | 10 000            | 10 000       |
| DO-41                   |                     | 5000              | 5000         |
| Suffix to ordering code | -TR                 | -TR               | -TAP         |

| TAPING SPECIFICATIONS DO-35, DO-41, SOD-57, AND SOD-64 PACKAGE |   |                    |
|--|---|--------------------|
| DESCRIPTION  | SYMBOL  | SPECIFICATION (mm) |
| Component pitch  | A   | 5.0 ± 0.5          |
| Devices with diameter  | d   | < 4.5              |
| Component pitch  | A'  | 10 ± 0.5           |
| Devices with diameter  | d'  | > 4.5              |
| Inside tape spacing  | B   | 52 + 2 mm - 1 mm   |
| Lead to lead eccentricity                                      | ID1-D2I   | 1.4 max.           |
| Lead extension   | K   | 0                  |
| Lead bending   | M   | 1.2 max.           |
| Cumulative pitch   | P   | 2.0 per 10 pitch   |
| Exposed adhesive   | S   | 0.8 max.           |
| Tape width   | T   | 6.0 ± 0.4          |
| Tape leader  | Beginning and end of reel or ammo pack  | 300 min.           |
| Empty spaces   | Consecutive missing components not allowed  | < 0.1 %            |
| Polarity marking   | All polarized components shall be oriented in the same direction.<br>The cathode tape shall be colored, and anode tape shall be white or light beige. |                    |

#### Note

- Allowable deviation above 10 taped steps ± 2 mm

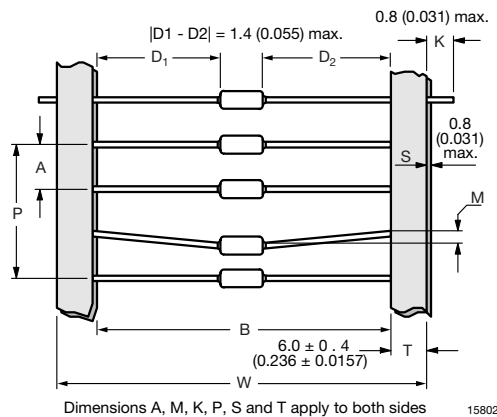


Fig. 1

# Taping of Diodes

Vishay Semiconductors

Taping of Diodes



## AMMO PACK #1 SPECIFICATION (DO-35, DO-41, SOD-57, AND SOD-64 PACKAGES)

| DESCRIPTION | SYMBOL | SPECIFICATION |             |
|-------------|--------|---------------|-------------|
|             |        | INCHES        | MILLIMETERS |
| Length      | A      | 10.25 ± 0.2   | 260 ± 5.0   |
| Width       | B      | 2.75 ± 0.2    | 70 ± 5.0    |
| Height      | C      | 5.75 ± 0.65   | 146 ± 16    |

**Note**

- Material: corrugated board (neutral)

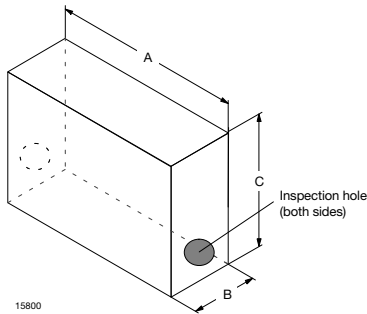


Fig. 2

| REEL SPECIFICATION       |                |                  |                |
|--------------------------|----------------|------------------|----------------|
| DESCRIPTION              | SYMBOL         | REEL SIZE        | REEL SIZE      |
|                          |                | 10"              | 14"            |
|                          |                | SOD-57<br>SOD-64 | DO-35<br>DO-41 |
| Arbor hole diameter      | D <sub>0</sub> | 30 ± 1 mm        | 30 ± 1 mm      |
| Core diameter            | D <sub>1</sub> | 71 ± 1 mm        | 80 ± 1 mm      |
| Reel diameter            | D <sub>2</sub> | 250 ± 2 mm       | 355 mm         |
| Drive hole diameter      | D <sub>3</sub> | 10 ± 1 mm        | 8 ± 0.5 mm     |
| Reel width               | W <sub>1</sub> | 68 ± 1 mm        | 73 mm          |
| Drive/arbor hole spacing | W <sub>2</sub> | 27.5 ± 1 mm      | 26 ± 0.5 mm    |
| Core material            |                | Plastic          | Carton         |
| Reel material            |                | Plastic          | Carton         |

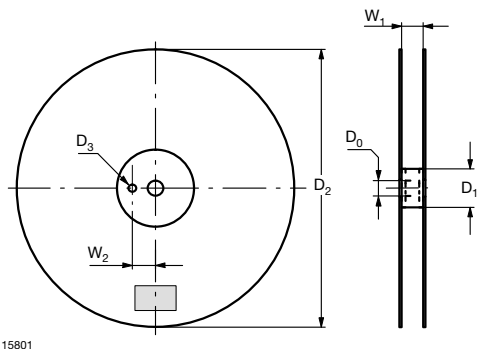


Fig. 3

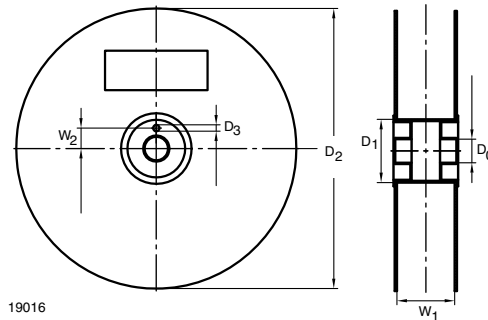


Fig. 4

## TAPE AND REEL SURFACE-MOUNTED DEVICES (SMDs)

SMDs are normally delivered taped on blister tape and reeled according to IEC 286-3. The mounting side of the component is oriented to the bottom side of the tape. For components with two terminations, the cathode side is oriented to the sprocket hole. For components in SOT-23 package, the side from which one single termination emerges is oriented to the sprocket hole. Components can be delivered either on 180 mm or on 330 mm reels. For quantities per reel, see below.

| CASE TYPE            | SUFFIX | QUANTITY | REEL SIZE<br>IN mm<br>(DIAMETER) | TAPE<br>WIDTH<br>IN mm |
|----------------------|--------|----------|----------------------------------|------------------------|
| DO-214AC<br>(SMA)    | -TR    | 1500     | 180                              | 12                     |
|                      | -TR3   | 6000     | 330                              | 12                     |
| MicroMELF            | -TR    | 2500     | 180                              | 8                      |
|                      | -TR3   | 10 000   | 330                              | 8                      |
| MiniMELF<br>SOD-80   | -GS08  | 2500     | 180                              | 8                      |
|                      | -08    |          |                                  |                        |
|                      | -GS18  | 2500     | 330                              | 8                      |
|                      | -18    |          |                                  |                        |
| QuadroMELF<br>SOD-80 | -GS08  | 2500     | 180                              | 8                      |
|                      | -08    |          |                                  |                        |
|                      | -GS18  | 2500     | 330                              | 8                      |
|                      | -18    |          |                                  |                        |
| DO-219AB<br>(SMF)    | -GS08  | 3000     | 180                              | 8                      |
|                      | -08    |          |                                  |                        |
|                      | -GS18  | 10 000   | 330                              | 8                      |
|                      | -18    |          |                                  |                        |
| SOD-123              | -GS08  | 3000     | 180                              | 8                      |
|                      | -08    |          |                                  |                        |
|                      | -GS18  | 10 000   | 330                              | 8                      |
|                      | -18    |          |                                  |                        |

| CASE TYPE | SUFFIX | QUANTITY | REEL SIZE IN mm (DIAMETER) | TAPE WIDTH IN mm |
|-----------|--------|----------|----------------------------|------------------|
| SOD-323   | -GS08  | 3000     | 180                        | 8                |
|           | -08    |          |                            |                  |
|           | -GS18  | 10 000   | 330                        | 8                |
|           | -18    |          |                            |                  |
| SOD-523   | -08    | 3000     | 180                        | 8                |
|           | -18    | 10 000   | 330                        | 8                |
| SOT-23    | -GS08  | 3000     | 180                        | 8                |
|           | -08    |          |                            |                  |
|           | -GS18  | 10 000   | 330                        | 8                |
|           | -18    |          |                            |                  |
| SOT-323   | -GS08  | 3000     | 180                        | 8                |
|           | -08    |          |                            |                  |
|           | -GS18  | 10 000   | 330                        | 8                |
|           | -18    |          |                            |                  |

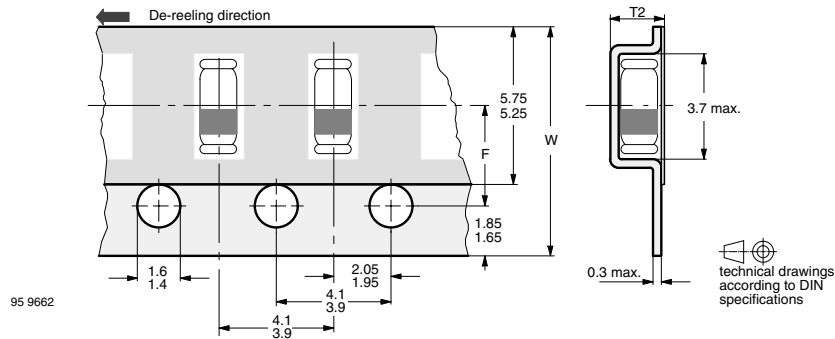


Fig. 5

| PACKAGES  | DIMENSIONS (mm) |            |          |             |
|---|-----------------|------------|----------|-------------|
|   | W               | F          | T2       | B           |
| MiniMELF SOD-80, QuadroMELF SOD-80, MicroMELF, SOD-123, SOD-323, SOD-523, SOT-23, SOT-323 | 8 ± 0.3         | 3.5 ± 0.05 | 2.5 max. | 8.4 to 10.4 |

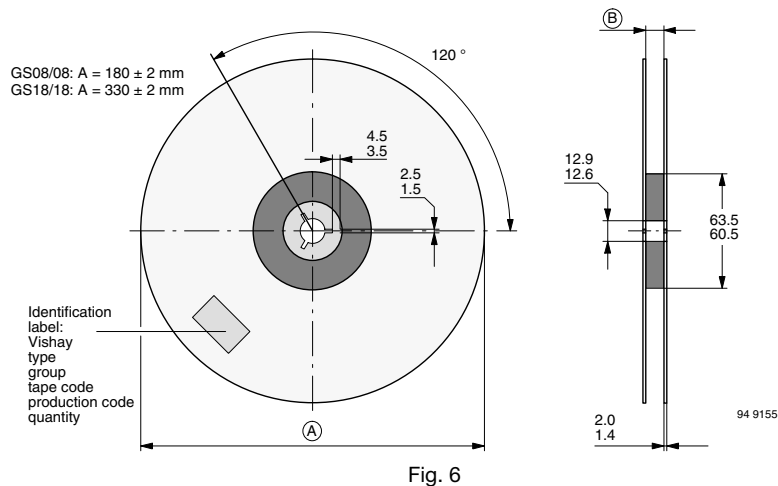


Fig. 6

## MISSING DEVICES

A maximum of 0.5 % of the total number of components per reel may be missing - exclusively at the beginning and at the end of the reel. A maximum of three consecutive components may be missing, provided this gap is followed by six consecutive components (see figure 7).

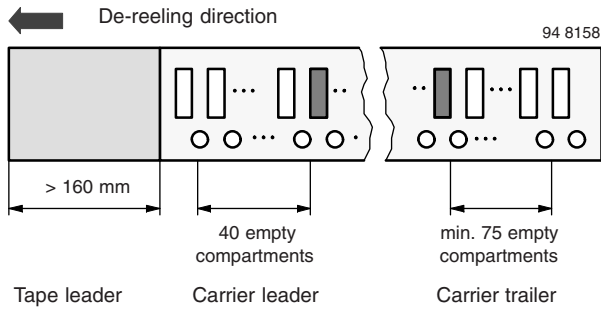


Fig. 7

## LABELING



Fig. 1 - Labeling of Taping Reel



Fig. 2 - Labeling of Carton Box