

Packaging and Shipping

DESCRIPTION

Solid state relays are available in plastic dual-in-line packages (DIP), SOP packages, and in a surface-mount, gullwing, lead bend configuration. SSRs purchased in the DIP configuration are shipped in tubes. SSRs purchased in a gullwing configuration can be shipped in tubes or on carrier tape. This section provides stick specifications, tape and reel specifications, and component information.

TUBE SPECIFICATIONS

Figure 1 shows the physical dimensions of transparent, antistatic, plastic shipping tubes. Figure 2 shows tube safety agency labeling and orientation information.

The following table lists the number of parts per tube.

DEVICES PER TUBE	
PACKAGE	QUANTITY
6 pin DIP	50
6 pin gullwing	50
8 pin DIP	50
8 pin gullwing	50
8 pin SOP	40
4 pin SOP	100

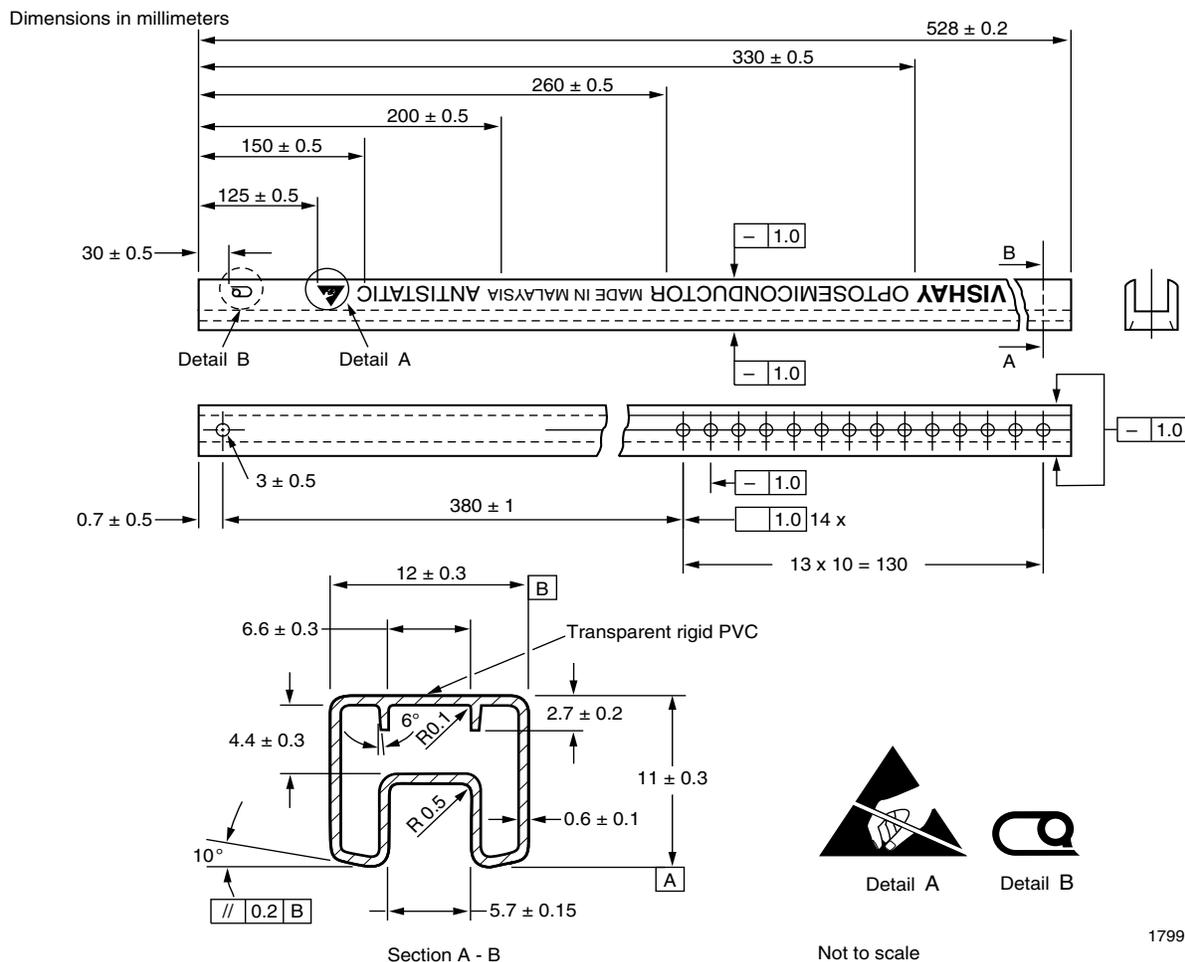
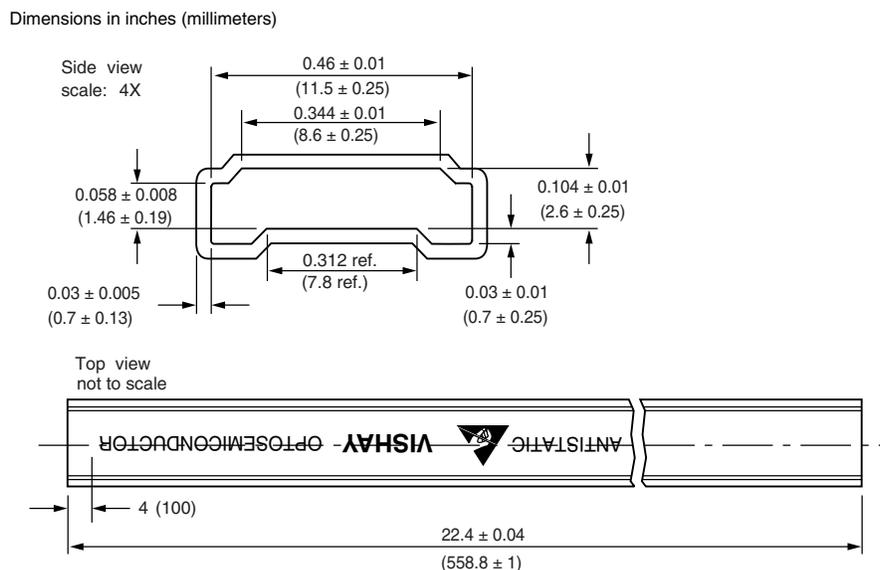


Fig. 1 - Shipping Tube Specifications for DIP Packages



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Fig. 2 - Shipping Tube Specifications for SOP Packages

TAPE AND REEL SPECIFICATIONS

Surface-mounted devices are packaged in embossed tape and wound onto 13" molded plastic reels for shipment, to comply with electronics industries association standard EIA-481, revision A.

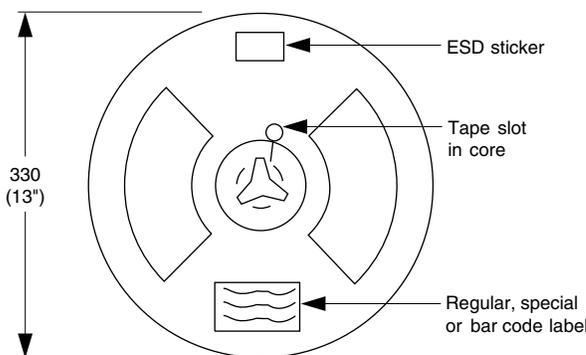
Leaders and Trailers

The carrier tape and cover tape are not spliced. Both tapes are one single uninterrupted piece from end to end, as shown in figure 2. Both ends of the tape have empty pockets meeting these requirements.

- Trailer end (inside hub of reel) is 300 mm minimum
- Leader end (outside of reel) is 500 mm minimum and 560 mm maximum
- Unfilled leader and trailer pockets are sealed
- Leaders and trailers are taped to tape and hub, respectively, with masking tape
- All materials are static-dissipative

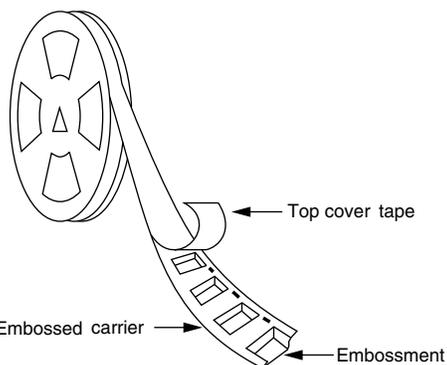
REELS

- As shown in figure 4, all reels contain standard areas for the placement of ESD stickers and labels. Each reel also has a tape slot in its core. The overall reel dimension is 13". Reels contain 1000 6 or 8 pin gullwing parts and could have up to three inspection lots.



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Fig. 1



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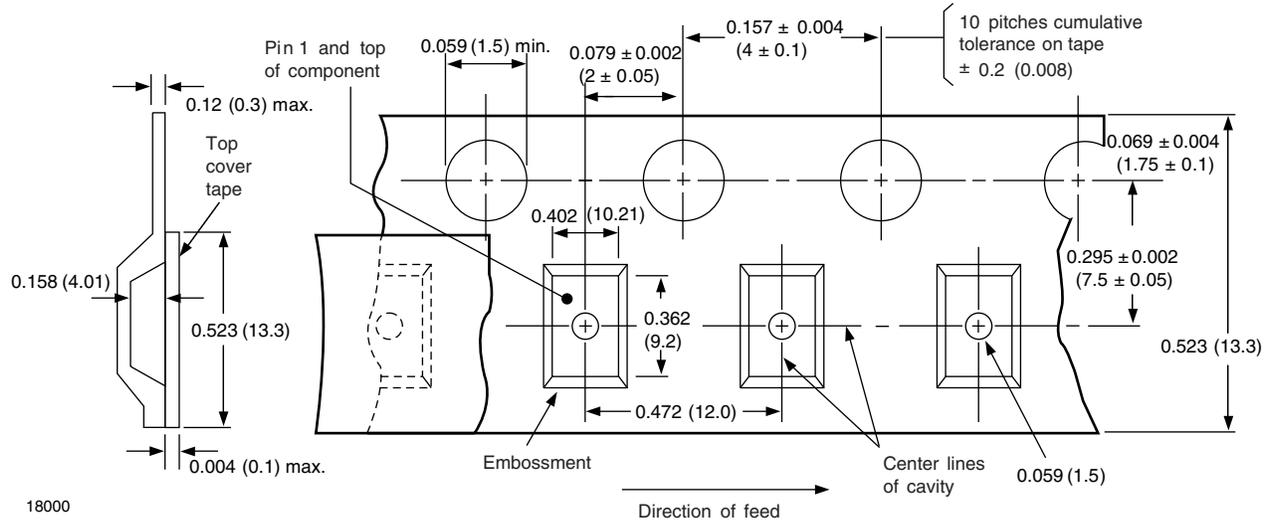
Fig. 3 - Tape and Reel Shipping Medium

COMPONENT SOLDERING

- Wave soldering: 270 °C, ≤ 7 s
- Surface mount soldering methods, including infrared reflow:
 - Maximum temperature: ≤ 250 °C
 - Maximum temperature must be reached in ≤ 360 s
 - Time above solder liquids temperature (183 °C) must be reached in ≤ 180 s
 - Only one excursion above 183 °C allowed

CARRIER TAPE

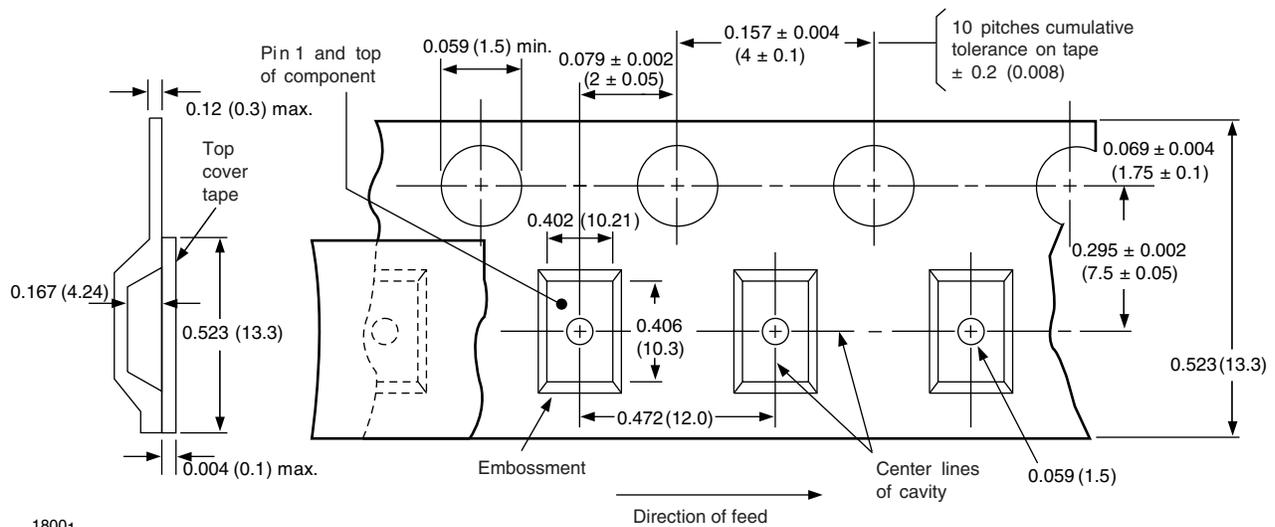
Figures 5 through 9 describe the carrier tape dimensions and the device orientation.



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Fig. 4 - Tape and Reel Packaging for 6 Pin Solid State Relays

The tape is 16 mm and is wound on a 33 cm reel. There are 1000 parts per reel. Taped and reeled 6 pin solid state relays conform to EIA-481-2.



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Fig. 5 - Tape and Reel Packaging for 8 Pin Solid State Relays

The tape is 16 mm and is wound on a 33 cm reel. There are 1000 parts per reel. Taped and reeled 8 pin solid state relays conform to EIA-481-2.

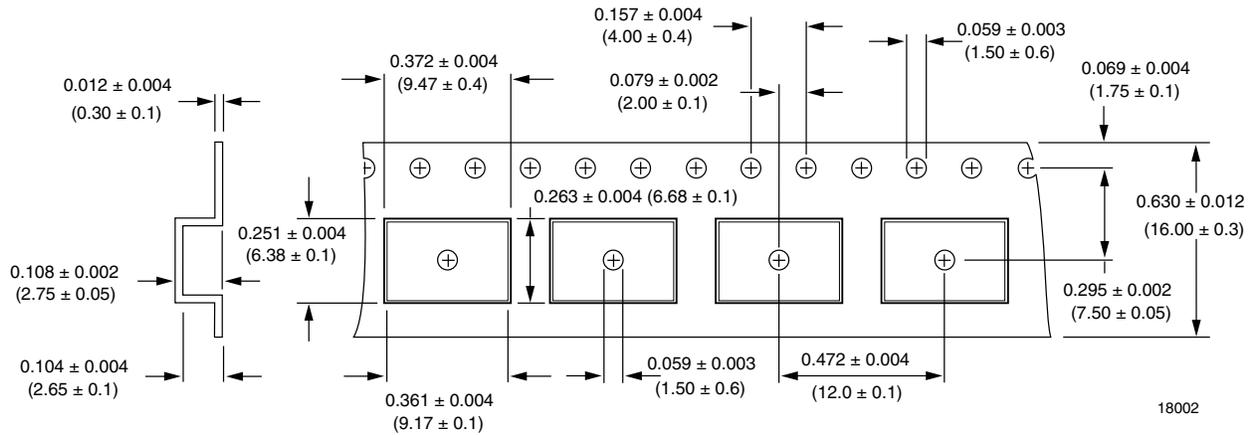


Fig. 1 - Conductive Embossed Carrier Dimensions for 8 Lead PCMCIA Packages

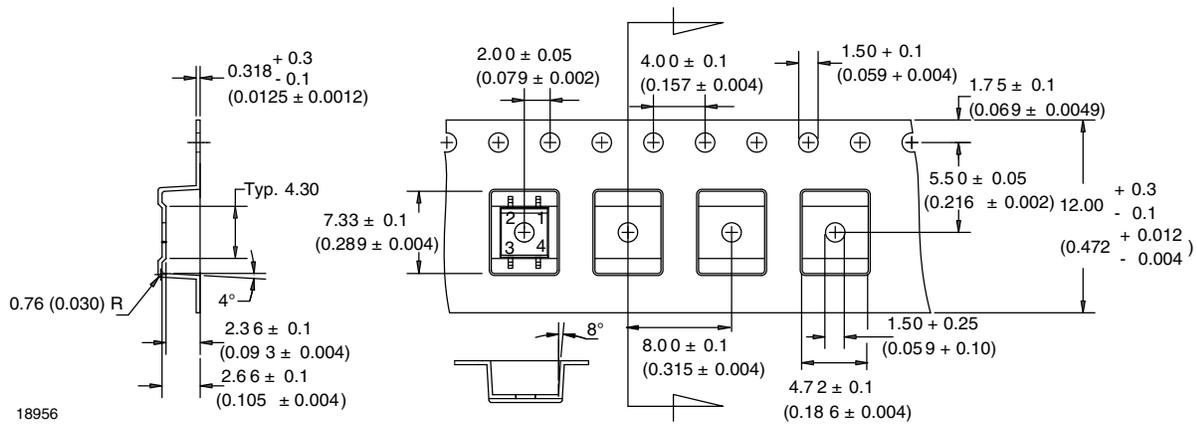


Fig. 6 - Tape and Reel Packaging for 4 Pin Miniflat Solid State Relays

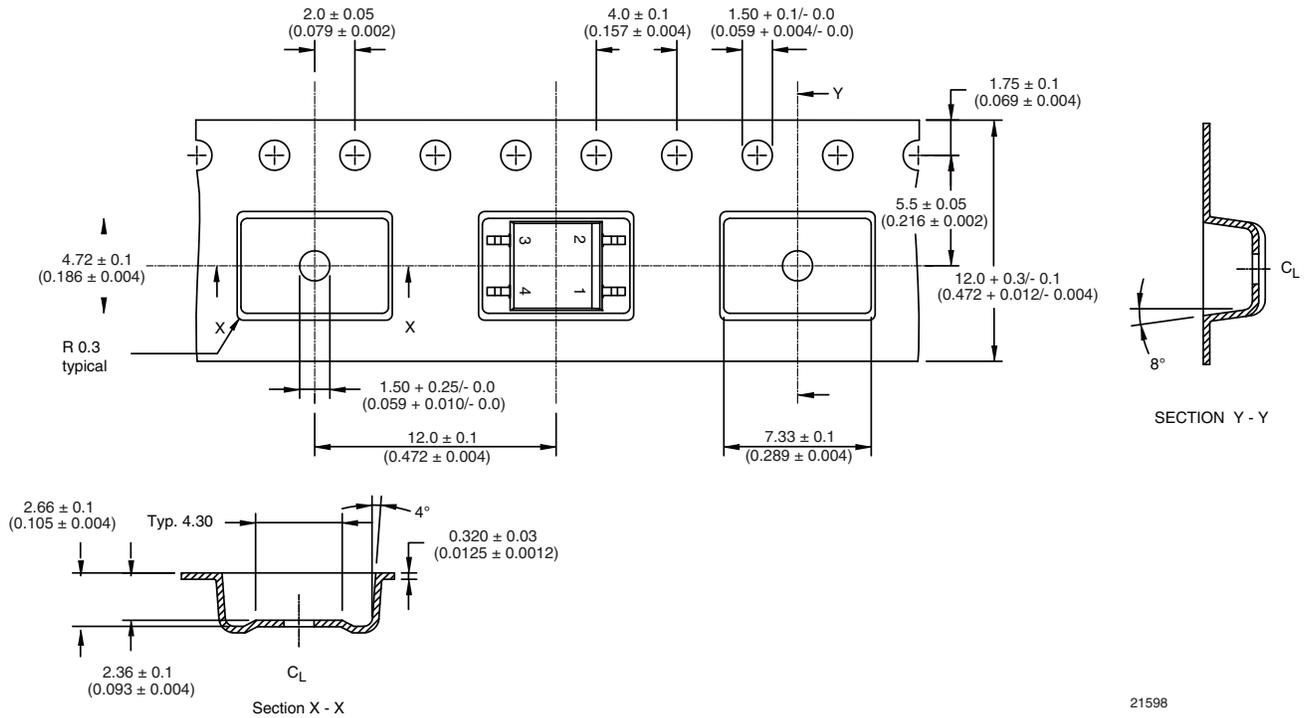


Fig. 7 - Tape and Reel Packaging 4 Pin Miniflat, 90° Rotation (T2)

Selected 4 pin miniflats are available in tape and reel format with the part rotated by 90°. To order this version, the tape and reel suffix "T" is augmented by the numeral "2" e.g. LH1546AEFT2. The tape is 12 mm and is wound on a 33 cm reel. There are 2000 parts per reel.

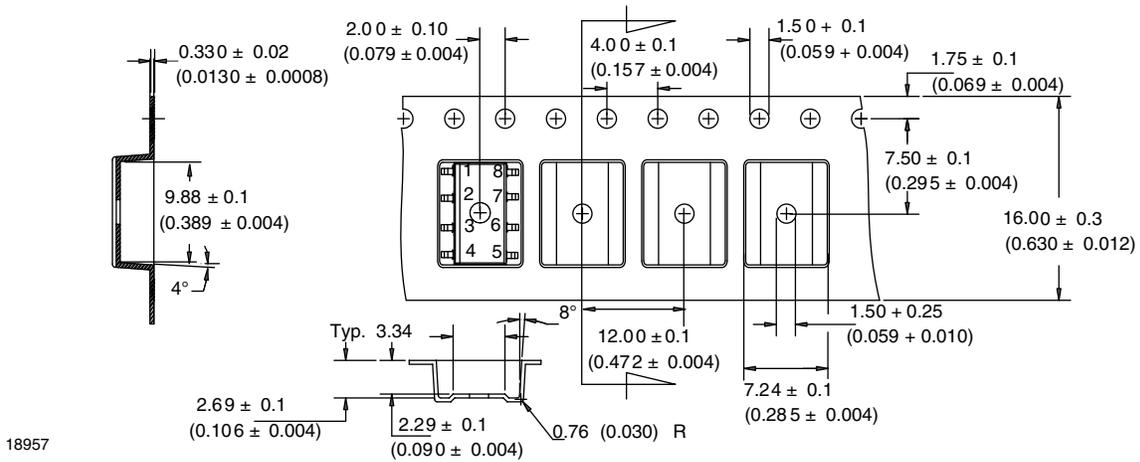


Fig. 8 - 3M Embossed Carrier Tape for Flatpack Solid State Relays

Note

The information in this document provides generic information but for specific information on a product the appropriate product datasheet should be used.