

Visible and IR LEDs in SMT-TOPLED™ Package— Tape and Reel Packaging Data Appnote 52

Applicable Part Numbers—A Sampling

Visible LEDs

| | |
|---------|---------------------|
| LS T670 | High Efficiency Red |
| LY T670 | Yellow |
| LG T670 | Green |
| LO T670 | Orange |

IR Emitters/Detectors

| | |
|--------------|--------------------------------------|
| SFH320..... | Phototransistor |
| SFH320F..... | Phototransistor with daylight filter |
| SFH420..... | GaAs 950 nm IRED |

For Automatic Placement

These parts come packaged on 18 cm diameter spools with 1500 pieces/spool. 33 cm spools (7500 pieces) are also available. The tape is compartmentalized and sealed with a foil cover.

Spool/Tape Characteristics

| | |
|--|--------------|
| Maximum Storage Temperature | 40° +5° |
| C/R-H=95%/240 hrs. | |
| Tape Tear Resistance (max.) | ≥10 N |
| (at right angle to direction of unreeling) | |
| Cover Foil Pull Force | 0.2 to 1.0 N |
| (pull speed=300 mm/min.) | |

Polarity and Orientation

- Mounting surface (bottom) on bottom of tape compartment
- All devices are oriented in one direction

Reel Marking

All reels are marked with manufacturer's name, part number, date code, and order number.

| Parameter | Symbol | Dimensions (mm) | Notes |
|---------------------------------|---------------------------------|----------------------|--|
| Tape Width | W | 8 ±0.3 | |
| Carrier Tape Thickness | t | 0.3 max. | |
| Sprocket Hole Pitch | P ₀ | 4 ±0.1 | Cumulative pitch error, ±0.5 mm pitches |
| Sprocket Hole Diameter | D ₀ | 1.5 +0.1 | |
| Sprocket Hole Distance | E | 1.75 ±0.1 | |
| Component Position | F | 3.5 ±0.05 | Center hole to center compartment |
| | P ₂ | 2 ±0.05 | |
| Component to Component Position | P ₃ | 4 | |
| Compartment Dimensions | K | 3 max. | See individual components for exact dimensions |
| | OL | 15° max. | |
| | R ₁ , R ₂ | 0.5 max. | |
| | H ₀ | 0.3 +0.1/-0.05 | Between inner side or the compartment bottom and the reference level for measuring A ₀ , B ₀ |
| | A ₀ | | Tolerances chosen so that the components can change their orientation, but can easily be removed from the tape |
| | B ₀ | | |
| Hole in Compartment | D ₁ | 1 +0.2 | Tolerance to the center or sprocket hole: ±0.1 mm |
| Fixing Tape Width | W ₁ | 5.5 typ. | Fixing tape not to cover sprocket holes, nor protrude beyond carrier tape so not to exceed max. tape width |
| Device Tilt in Compartment | d | 0.1 max. 15° max. | |
| Bending Radius | R | 25 min. | |