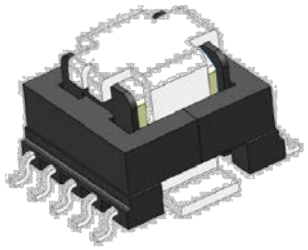
# T10135 Series

## 1. Features of T10135 Series:

- SMD current sense transformer with full selection of turn ratios.
- Primary current rating of 80A for T10135A, 60A for T10135B & 50A for T10135C.
- Inductance range from 1.50mH to 224.00mH. Custom values are welcomed.
- 19.91 x 14.48 mm Max. Foot Print with 11.00 mm Max. height.
- Hi-Pot rating of 500 Vrms for T10135A and 2500 Vrms for T10135B & T10135C.
- Ideal for current sense feedback control, Load drop sensing in Industrial Control or DC to DC converter applications.
- Tape & Reel Quantity: 250 pieces per 13 inches reel.
- RoHS and HF compliant.



## 2. Electrical Characteristics of T10135 Series:

| ITG Part Number | DCR (mΩ Max.) | | Inductance @100KHz/0.1V (mH Min.) | Primarily rated (A) | Hi-Pot Pri to Sec ($V_{AC}$) | Turns Ratio |
|---|---|---|---|---|---|---|
| | Primary (11-12) | Secondary (2-4) | | | | |
| T10135A-50HF | 0.08 | 900 | 1.50 | 80 | 500 | 1:50 |
| T10135A-60HF | 0.08 | 1050 | 2.20 | 80 | 500 | 1:60 |
| T10135A-100HF | 0.08 | 2500 | 6.00 | 80 | 500 | 1:100 |
| T10135A-200HF | 0.08 | 12500 | 25.00 | 80 | 500 | 1:200 |
| T10135A-400HF | 0.08 | 50000 | 100.00 | 80 | 500 | 1:400 |
| T10135B-100HF | 0.18 | 2500 | 6.00 | 60 | 2500 | 1:100 |
| T10135B-200HF | 0.18 | 12500 | 25.00 | 60 | 2500 | 1:200 |
| T10135B-400HF | 0.18 | 50000 | 100.00 | 60 | 2500 | 1:400 |
| T10135C-500HF | 0.28 | 66000 | 155.00 | 50 | 2500 | 1:500 |
| T10135C-600HF | 0.28 | 82000 | 224.00 | 50 | 2500 | 1:600 |

## 3. Mechanical Dimension of T10135 Series (Unit: mm):

| Dimension | A Max. | B Max. | C Max. | D ± 0.30 | E Ref. | F ± 0.10 |
|---|---|---|---|---|---|---|
| T10135A Series | 14.48 | 19.91 | 10.16 | 2.54 | 0.60 | 7.00 |
| T10135B & T10135 C Series | 14.48 | 19.91 | 11.00 | 2.54 | 0.60 | 5.00 |

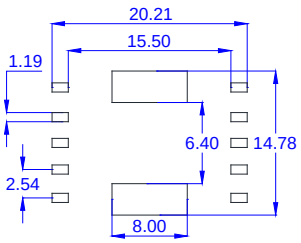
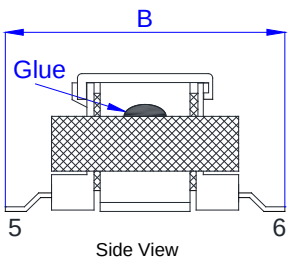
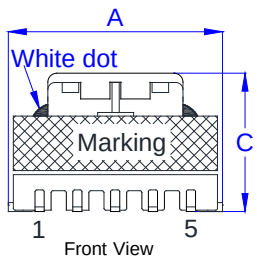



Figure 1:T10135A-Series Suggest PCB Layout




Side View




Front View

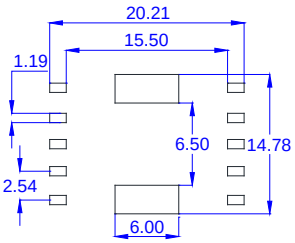
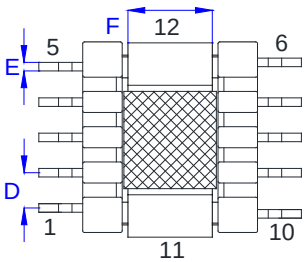
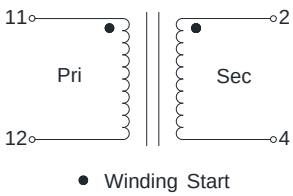



Figure 2:T10135B/C-Series Suggest PCB Layout




Bottom View




SCHEMATIC DIAGRAM

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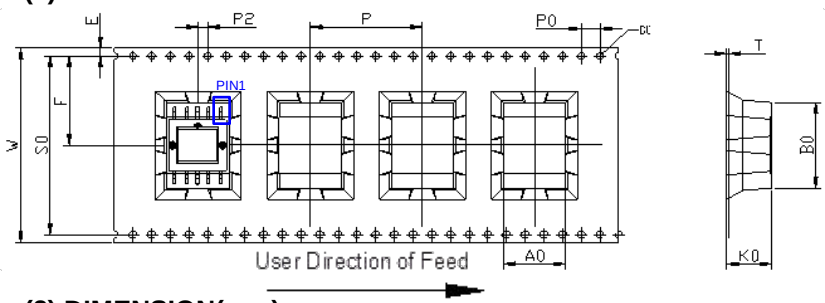
## 1.PACKAGE SPECIFICATION.(UNIT:mm):

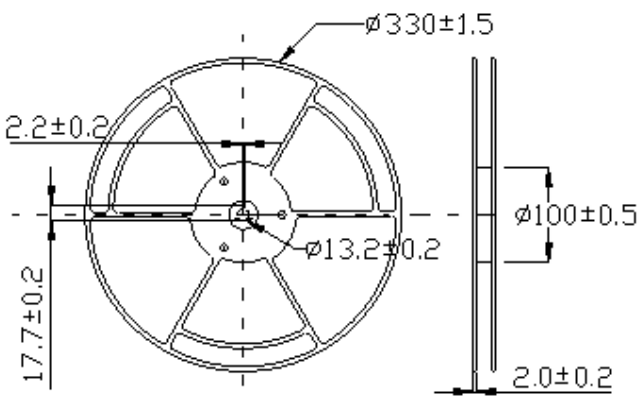
### (1).ENCAPSOLATION MODE:



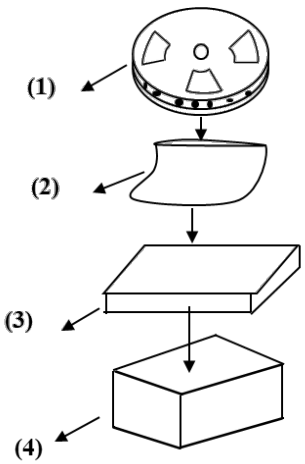

### (2).DIMENSION(mm):

| W | A0 | B0 | K0 | P | P0 | P2 | D0 | F | E | T |
|---|---|---|---|---|---|---|---|---|---|---|
| 32.0±0.3 | 14.58±0.1 | 20.01±0.1 | 10.26±0.1 | 24.0±0.1 | 4.0±0.1 | 2.0±0.1 | Φ1.5+0.1-0 | 14.2±0.1 | 1.75±0.1 | 0.50±0.05 |

### (3).REEL SIZE:




### (4).PACKAGE MODE:




### (5).PACKAGING LIST:

| No. | Packing Part | Dimension (mm) | Material | Quantity |
|---|---|---|---|---|
| 1 | Reel | 330 | Plastic | 250Pcs/Reel |
| 2 | Bag | 450x360x0.075 | Plastic | 1Reel/Bag |
| 3 | Small Box | 340X335X45 | Paper | 1Bag/Small Box |
| 4 | Middle Box | 356X350X226 | Paper | 4Small Boxes/Middle Box |

**(6).WEIGHT:** N.W: 4.4g/pcs TOTAL 4.4Kg(APPROX),G.W:TOTAL 10Kg (APPROX).

**(7).Storage conditions:** -10℃~40℃, 70%RH (Max.).

# T10135 Series

## 1.RELIABILITY TEST:

| TEST ITEMS | SPECIFICATIONS | TEST METHOD AND REMARKS |
|---|---|---|
| Solderability | The electrodes shall be at least 95% covered with new solder coating | According to IEC68-2-20 Method T(Tb)<br>1. Soldering temperature:260±5℃<br>2. Solder: 99.3%Sn/0.7%Cu<br>3. Flux:Rosin<br>4. Immersion time:5±1Sec |
| Resistance to solder heat | 1. Appearance : no damage 2. Inductance change:within±10%of initial value | According to MIL-STD-202Method210<br>1. Preheat temperature150℃<br>2. Preheat time:1min<br>3. Solder temperature260±5℃<br>4. Dipping time:10±1Sec<br>5. Measured at room temperature after placing for 24hours |
| Vibration(OUT LAB) | 1. Appearance : no damage<br>2. All Electrical and mechanical parameters within tolerance | According to MIL-STD-202G Method 201A<br>1.Frequency:10 to55Hz<br>2.Amplitude:1.55mm<br>3.Direction and timeX Y and Z Direction for 2 hours each (total 6 hours) |
| Humidity resistance | 1. Appearance : no damage<br>2. All Electrical and mechanical parameters within tolerance | According to IEC68-2-3 Method Ca<br>1. Temp:40±2℃<br>2. Humidity:93 +2/-3%RH<br>3. Test time:500±2H<br>4. The component should be stabilized at normal condition for24 Hours before test |
| High temperature resistance | 1. Appearance : no damage<br>2. All Electrical and mechanical parameters within tolerance | According to IEC68-2-2 Method B(Bd)<br>1. Temperature:85±3℃<br>2. Test time:500+24H/-0H<br>3. The component should be stabilized at normal condition for 24hours before test |
| Low Temperature resistance | 1. Appearance : no damage<br>2. All Electrical and mechanical parameters within tolerance | According to IEC68-2-1 Method A(Ad);<br>1. Temperature:-40±3℃<br>2. Test time:500+24H/-0H<br>3. The component should be stabilized at normal condition for 24hours before test |
| Temperature cycles | 1. Appearance : no damage<br>2. All Electrical and mechanical parameters within tolerance | According to IEC68-2-14 Method N(Nb);<br>1. Low-temp:-40±3℃ duration 30min<br>2. room –temp:25±2℃ duration 3H<br>3. High-temp:85±3℃ duration 30min<br>4. room-temp:25±2℃ duration3H<br>5. Number of cycle:10 cycles<br>6. The component should be stabilized at normal condition for 24hours before test |

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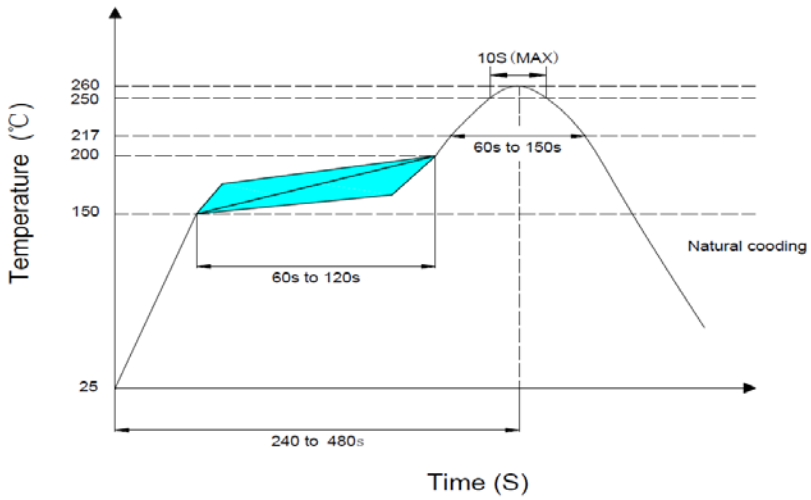
## Soldering Reflow Chart

| Stage | Precaution | Recommended temperature profile |
|---|---|---|
| Reflow soldering | Temperature profile can be referenced after confirming of adhesion , temperature of resistance to soldering heat , component size , soldering etc. sufficient .<br><br>**Note:**<br>please refer to the latest IPC/JEDEC J-STD-020: "Moisture/Reflow Sensitivity Classification for Nonhermetic Solid State Surface Mount Devices" |  |