Features
- Toroid core for high coupling and low radiation
- Complies with IEC 60950-1 and IEC 62368-1
- Reinforced insulation for working voltage up to 1000 V
- Hi-Pot: 4200 VAC
- Designed for isolation power supplies using TI SN6501 and SN6505B
- RoHS compliant*

HCTSM100304FL High Clearance and Creepage Distance Transformer

Additional Information
Click these links for more information:
- PRODUCT
- TECHNICAL LIBRARY
- INVENTORY
- SAMPLES
- CONTACT

General Specifications
OCL (100 kHz / 1 V)
1-4 with Pin 2,3 shorted
...400 µH min. (700 µH typ.)
Leakage Inductance (100 kHz / 0.1 V)
1-4 with Pin 2,3 shorted and
Pin 5,6,7,8 shorted........2.0 µH max.
DCR
NP1........................0.50 Ω max.
NP2........................0.50 Ω max.
NS1........................0.50 Ω max.
NS2........................0.50 Ω max.

Turns Ratio (NS:NP)........1.333 ± 3 %
Volt Second Product.........11 VuS typ.
Hi-pot (5 mA, 60 S)...........4200 VAC
Working Voltage .............up to 1000 V
Operating Temperature
..................................................-40 °C to +125 °C
(Temperature rise included)
Storage Temperature (Component)
..................................................-40 °C to +125 °C
Clearance/Creepage Distance of
Primary to Secondary......10 mm min.
Level of Insulation
......Reinforced for the working voltage
of 1000 V, Overvoltage Category II,
Pollution Degree 2, Altitude 2000 m
Moisture Sensitivity Level............1
ESD Classification (HBM)..............N/A

Packaging Specifications
Tape & Reel........400 pcs./13-inch reel

How To Order
Model HCTSM100304F L - E
RoHS Compliancy Designator
Packaging E = 400 pcs. per 13-inch Reel,
5 Reels per Box

Electrical Schematic

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Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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WARNING  Cancer and Reproductive Harm - www.P65Warnings.ca.gov
Reflow Solder Profile

Profile Feature | Pb-Free Assembly
--- | ---
Average Ramp-Up Rate | 3 °C / second max.
PREHEAT:
Temperature Min. (T_{\text{min}}) | 150 °C
Temperature Max. (T_{\text{max}}) | 200 °C
Time (T_{\text{min}} to T_{\text{max}}) | 60–180 seconds
Liquidus Temperature (T_L) | 217 °C
Time Above Liquidus Temperature (t_L) | 60–150 seconds
Peak Temperature (T_P) | 245-250 °C
Time within 5 °C of Actual Peak Temperature (t_p) | 20–40 seconds
Ramp-Down Rate from Peak Temperature | 6 °C / second max
Time 25 °C to Peak Temperature (T_P) | 8 minutes max.
Do Not Exceed | 260 °C

Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.

Dimensions:
- **DIA.**: 30.5 (1.205) MAX.
- **DIA.**: 24.5 ± 0.2 (0.965 ± 0.008)
- **DIA.**: 28.0 ± 0.3 (1.102 ± 0.012)
- **DIA.**: 21.0 ± 0.8 (0.827 ± 0.031)
- **DIA.**: 13.2 ± 0.3 (0.520 ± 0.012)

**MIN.**
- **DIA.**: 109 ± 2.0 (4.337 ± 0.079)
- **DIA.**: 33.0 ± 2.0 (1.299 ± 0.079)
- **DIA.**: 13.2 ± 0.3 (0.520 ± 0.012)
- **DIA.**: 28.0 ± 0.3 (1.102 ± 0.012)
- **DIA.**: 21.0 ± 0.8 (0.827 ± 0.031)

**MAX.**
- **DIA.**: 30.5 (1.205)
- **DIA.**: 24.5 (0.965)
- **DIA.**: 21.0 (0.827)
- **DIA.**: 13.2 (0.520)

Dimensions: **MM** (INCHES)

**DETAIL A**

REV. 05/22

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