TSOP I

Thin Shrink Small Outline Package (TSSOP I)

DESCRIPTION

Lingsen TSOP I is a lead frame based plastic package with body thickness of only 1.0mm. It is available in different body sizes and pin counts from 28L to 48L. TSOP packages are ideal for packaging Flash, EEPROMs and SRAMs in consumer and portable electronic applications such as Cell Phone and PDAs.

The package meets JEDEC Moisture Sensitivity Level 3 standard that ensures reliability in its functions.

SPECIFICATIONS

✦ Die Thickness	279um (11mils) maximum
✦ Gold Wire	99.99% Au
✦ Mold Compound	EME G700 (Green) EME 7372 (Non-Green)
✦ Plating	Matte Tin
✦ Marking	White Ink / Laser Mark
✦ Packing	Tray

APPLICATIONS

- Memory + ASIC/Logic device
- using MCP
- Flash Memory
- SRAM/ Fast SRAM
- EEPROM

RELIABILITY

MSL Level: MSL 3 @ 240°C for Sn/Pb

MSL Level: MSL 3 @ 260°C for Pb-Free & Green

Pressure Cook Test: 168hrs (121°C, 100%RH, 2atm)

Temperature Cycling: 1,000cycles (-65°C/+150°C)

HAST: 100hrs (130°C, 85%RH)

Temperature & Humidity Test: 1,000hrs (85°C, 85%RH)

High Temperature Storage: 1,000hrs (150°C)

FEATURES

- Thin body profile (1.0mm)
- JEDEC standard compliant
- JEDEC MSL level 3 qualified for all pin counts

THERMAL PERFORMANCE

Package	Body Size (mm)	Pad Size (mm)	Die Size (mm)	Thermal Performance θja (°C/W)
TSOP I 28L	11.8x8	10.278x5.08	5.649x4.229	57.63
TSOP I 48L	18.4x12	10.9474x7	9.99x4.85	46.63

Note:Simulated with JEDEC Standard 4-layer test board under still air condition, ambient temperature 45°C

ELECTRICAL PERFORMANCE

Package	Body Size (mm)	Pad Size (mm)	Frequency (MHz)	Self Inductance (nH)	Self Capacitance (pF)	Resistance (mohm)
TSOP I 28L	11.8x8	10.278x5.08	100	3.072~3.584	0.363~0.462	216.5~344.8
TSOP I 48L	18.4x12	10.947x7	100	2.806~9.649	0.59~0.93	311.5~942

Note:Results are simulated. Data is available through 2.5GHz.

CROSS-SECTION