



MSOP

Mini Small Outline Package

DESCRIPTION

Lingsen MSOP is a lead frame based plastic encapsulated package with available pin count 8L & 10L. MSOP is for applications requiring thin, small, and high reliability. This package offers a smaller footprint, shorter wires for improved electrical connections and better moisture reliability (MRT/MSL).

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

SPECIFICATIONS

◆ Die Thickness:	
Normal	228um (0mils) maximum
Power Pad	381um (15mils) maximum
◆ Gold Wire	EME 99.99% Au
◆ Mold Compound	EME G700 (Green) KMC 184 (Non-Green)
◆ Plating	Matte Tin, PPF (ni Pd Au)
◆ Marking	Laser Mark
◆ Packing	Antistatic Tube / Tape & Reel

APPLICATIONS

- Analog and Operation Amplifiers
- Controllers and Drivers
- Logic, Memory, and RF/Wireless
- Disk Drivers, Video/Audio
- Consumer Appliances

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: 1000cycles (-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

- Body size 3x3mm
- Available pin count 8L & 10L
- Lead pitch 0.65mm and 0.5mm
- Thermal enhancements (exposed pad) and regular types available
- JEDEC standard compliant
- JEDEC MSL level 3 qualified for all pin counts

PACKAGE AVAILABILITY

Package	Body Size (mm)	Pad Size (mm)	Die Size (mm)	Thermal Performance θ_{ja} (°C/W)
MSOP 8L	3x3	1.727x2.3876	0.762x1.016	172.84
MSOP 10L	3x3	1.727x2.3876	1.2x1.82	165.12

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)
MSOP 8L	3x3	1.727x2.3876	100	1.274~2.346	0.275~0.34	72.32~130.6
MSOP 10L	3x3	1.727x2.3876	100	1.166~1.667	0.255~0.316	48.26~114.1

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

CROSS-SECTION

