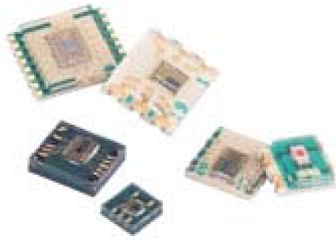

COB

Chip on Board Package

DESCRIPTION

Lingsen COB is a BT substrate based clear molding compound encapsulated package with body thickness of only 1.1/1.0/0.95/0.7mm. It is available in pin count from 4L to 30L or above in different body width and length.

It is widely used in the packaging of photo-detector ICs.

The package meets JEDEC Moisture Sensitivity Level 4 standard that ensures reliability in its functions.

SPECIFICATIONS

- Die Thickness: 250um(10mils) maximum
- Substrate: BT
- Die Attach: 2100A/84-1 LMISR4
- Gold Wire: 99.99% Au
- Mold Compound: NT-309HQ/NT-310Q/NT-330HQ (Green)
- Plating: Ni Au plated for soldering pad
- Marking: White Ink
- Packing: Antistatic Tube / Tray

APPLICATIONS

- Photo-detector
- Amplifier for laser light
- Pick up head for DVDRW/DVDRAM/CDRW systems

RELIABILITY

MSL Level	JEDEC Level 4 @ 220°C
Temperature Cycling	500 cycles (-40°C /85°C)
Temperature & Humidity Test	1,000 hrs (60°C/90%RH)
High Temperature Storage	100 hrs (85°C)

FEATURES

- Full in-house package and substrate design capability
- Meet industrial particle/foreign material level requirements
- Pin count range from 4L to 30L or above

PACKAGE AVAILABILITY

Package	Body Size (mm)	Pad Size (mm)	Die Size (mm)	Thermal Performance θja (°C/W)
COB 8L (3x3.5mm)	3x3.5	1.47x1.90	1.17x1.60	55.76
COB 16L (5x4mm)	5x4	1.95x2.36	1.65x2.06	36.72

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)

COB 8L(3x3.5mm)	3x3.5	1.47x1.90	100	0.29-0.51	0.23-0.48	17.9-22.4
COB 16L(5x4mm)	5x4	1.95x2.36	100	0.50-1.40	0.30-0.61	22.8-39.5

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

CROSS-SECTION