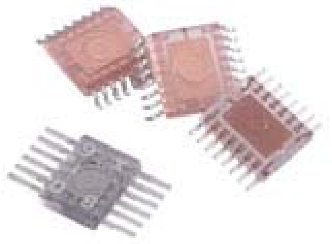


PDIC

Photo Device Integrated Circuit Package

DESCRIPTION

Lingsen PDIC (Photo-detector IC) is a lead frame based clear molding compound encapsulated package. It is available in pin counts from 10L to 16L or can be customized to individual customer needs. It is widely used for following types of product applications: DVD, DVD-RW, DVD-ROM, DVD-R, CD-R, CD-ROM, CD-RW.

The package meets JEDEC Moisture Sensitivity Level 6 standard that ensures reliability in its functions.

SPECIFICATIONS

✸ Lead Frame	10/12L Material: Alloy42; 16L Material: C194
✸ Die Attach	AG03X7
✸ Gold Wire	99.99% Au
✸ Mold Compound	NT-309HQ (Green)
✸ Plating	Matte Tin / SnBi
✸ Marking	White Ink
✸ Packing	Antistatic Tube

APPLICATIONS

- Photo-detector
- Amplifier for laser light
- Pickup head for VCD and DVD

RELIABILITY

MSL Level	JEDEC Level 6 @ 220°C
Temperature Cycling	100 cycles (-40°C /+85°C)
Temperature & Humidity Test	500 hrs (60°C / 90%RH)
High Temperature Storage	500 hrs (85°C)
Low Temperature Storage	500 hrs (-40°C)

FEATURES

- Meet industrial particle/foreign material level requirements
- Pin count range from 10L to 16L
- Lead pitch of 0.6/0.65/0.7/0.8 mm
- Flat/Gull Wing (for 3x4mm) lead format

PACKAGE AVAILABILITY

Package	Body Size (mm)	Pad Size (mm)	Die Size (mm)	Thermal Performance θja (°C/W)
10 (Fused Lead)	4x5	2.2x2.8	0.868x0.898	512.6
12 (Fused Lead)	4x5	2.14x2.47	1.87x2.17	493.13
16	4.4x5.2	2.5x3.6	3.3x2.2	206.47

Note:

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

Power: 0.3W

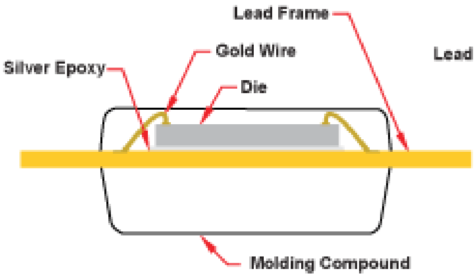
2.10/12L L/F Material: Alloy42; 16L L/F Material : C194

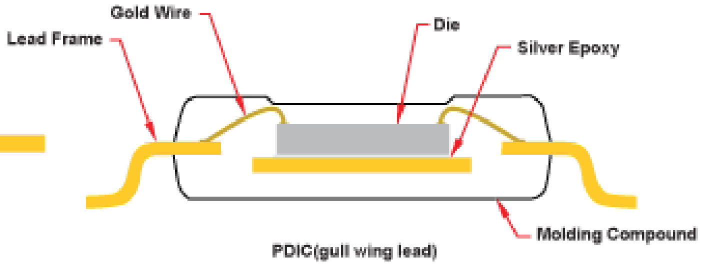
ELECTRICAL PERFORMANCE

Package	Body Size (mm)	Pad Size (mm)	Frequency (MHz)	Self Inductance (nH)	Self Capacitance (pF)	Resistance (mohm)
10L	4x5	2.2x2.8	100	1.56~2.725	2.172~0.471	336.3~477.1
10L	4x5	2.14x2.47	100	1.901~1.451	0.403~1.599	368.3~271.7
10L	4.4x5.2	2.5x3.6	100	0.493~0.581	0.493~0.581	76.34~104.1

Note:Results are simulated. Data is available through 1GHz.

CROSS-SECTION





PDIC(gull wing lead) cross section