



Features

- ▶ .352" x .352" to 1.152" x 1.152" body sizes
- ▶ 20-84 lead counts
- ▶ Conformance to JEDEC standard outlines
- ▶ Fine pitch wirebond capability

Applications

Amkor's PLCC product family is engineered to meet JEDEC requirements for "J" leaded surface mount packages. This package is used for a wide variety of device types, including: microcontrollers, ASICs, power controllers, etc. Typical applications include consumer and industrial products.

PLCC

Amkor's PLCC (Plastic Leaded Chip Carrier) package offerings cover the total range of industry-available options, including 20 to 84 lead square body packages as well as the 32 lead rectangular body format. RoHs compliant, lead-free and green materials are now Amkor qualified standards for this package family.

Thermal Performance

Multi-layer PCB

Package	Body Size (mm)	Pad Size (mm)	θ_{JA} at (°C/W) by Velocity (LFPM)		
			0	200	500
28 Ld	11.5 x 11.5	6.6 x 6.6	37.8	32.1	29.4
44 Ld	16.6 x 16.6	8.89 x 8.89	29.6	24.4	22.0
84 Ld	29.3 x 29.3	10.8 x 10.8	22.2	19.4	18.1

JEDEC Test Board - 1S2P

Tested @ 1W, with drop-in heatspreader option

Electrical Performance

Simulated Results @ 100 MHz

Package	Body Size (mm)	Pad Size (mm)	Lead	Self Inductance (nH)	Bulk Capacitance (pF)	Self Resistance (mΩ)
20 Ld	8.9 x 8.9	3.7 x 3.7	Longest Shortest	2.110 1.780	0.596 0.583	13.5 11.1
44 Ld	16.6 x 16.6	8.89 x 8.89	Longest Shortest	2.900 2.140	0.893 0.681	17.8 13.7
84 Ld	29.3 x 29.3	10.8 x 10.8	Longest Shortest	10.900 6.840	1.780 1.750	57.6 43.2

Reliability Qualification

Amkor's PLCC packages are assembled in optimized package designs with proven reliable semiconductor materials to industry standard JEDEC test methods.

- ▶ Moisture Sensitivity Characterization: JEDEC Std D Level 3, 30°C/60% RH, 192 hrs
- ▶ Temp Cycle: -65°C/+150°C, 500 cycles
- ▶ uHAST: 130°C/85% RH, 1000 hours
- ▶ High Temp Storage: 50°C, 1000 hours

PLCC

Process Highlights

- ▶ Die thickness: 25 mils
- ▶ Strip plating: 100% Matte Sn
- ▶ Strip marking: Laser
- ▶ Lead inspection: Optical

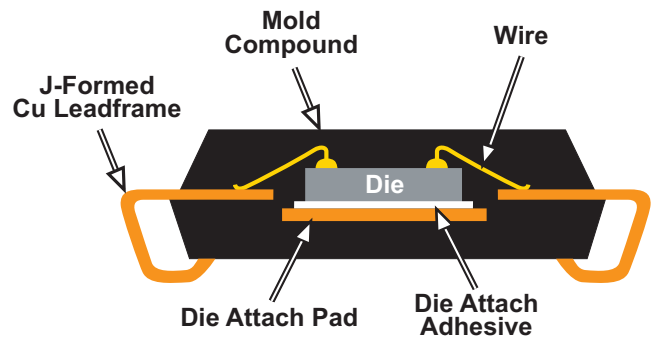
Test Services

- ▶ Program generation/conversion
- ▶ Product engineering support
- ▶ Wafer sort
- ▶ -55°C to +165°C test available

Shipping

- ▶ Clear anti-static tubes

Cross Section PLCC



Configuration Options

PLCC Nominal Package Dimensions (mm)

Package Type	Lead Count	Body Size	Body Thickness	Lead Pitch	Lead Form	Amkor DWG #	JEDEC	Units Per Tube
Square	20	.352 x .352	0.152	0.05	N/A	00060	MS-018	46
	28	.452 x .452	0.152	0.05	N/A	00060	MS-018	37
	44	.652 x .652	0.152	0.05	N/A	00060	MS-018	26
	52	.752 x .752	0.152	0.05	N/A	00060	MS-018	23
	68	.952 x .952	0.150	0.05	N/A	00060	MS-018	18
	84	1.152 x 1.152	0.150	0.05	N/A	00060	MS-018	15
Rectangular	32	.452 x .552	0.109	0.05	N/A	00061	MS-016	30



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