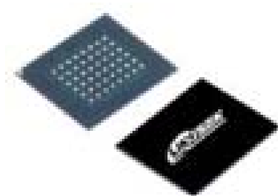

MBGA

Mini Ball Grid Array Package

DESCRIPTION

Lingsen Mini-BGA is a cavity up, wire bonded and overmolded on BT substrate chip scale package. It offers small scale, light weight and cost saving solutions for low ball counts less than 300. It is suitable for portable and handheld products and can be one of your best choice. MiniBGA with a matrix format substrate and a common mold chase accommodates different package sizes to offer manufacturing flexibility and thus reduce time to market effectively.

SPECIFICATIONS

Die Thickness	250um(10mils) maximum
Substrute	Ablebond 8510AA / 2100A
Gold Wire	25um(1.0mils) diameter 99.99% Au
Mold Compound	Shin-Etsu KMC-211AA Series (Non-Green) Sumitomo EME-G770 Series (Green)
Solder Ball	Sn63/Pb37, Sn/Ag/Cu
Marking	Laser Mark
Packing	Tray

APPLICATIONS

- Memory, Analog, Flash, ASICs
- RF devices and simple PLDs
- Cellular Phone, Notebook,
- PDAs and Wireless Systems

RELIABILITY

MSL Level	JEDEC Level 3 @ 245°C
Temperature Cycling	500 cycles (-65/150°C)
Temperature & Humidity Test	1,000 hrs (85°C, 85%RH)
High Temperature Storage	1,000 hrs (150°C)
Thermal Shock Test	200 cycles (-55/125°C)
Pressure Cook Test	168 hrs (121°C,100%RH, 2atm)

FEATURES

- Low package profile: ≦1.10mm
- BT substrate
- Eutectic Sn63/Pb37 solder ball, Pb free solder option
- Full in-house design capability

THERMAL PERFORMANCE

Body Size (mm)	Ball Count	Ball Pitch (mm)	Thermal Ball Qity	Die Size (mm)	θja (°C/W)	Substrate	PCB
6x8	36	0.75	0	2.905x4.085	55.891	2	4
13x13	175	0.80	0	7x7	30.68	2	4

ELECTRICAL PERFORMANCE

Body Size	Ball Count	Substrate Layer	L(nH)	C(pF)	R(mohm)
6x6	49	2	3.36~1.212	0.797~0.332	177.7~75.74
13x13	175	2	9.42~0.181	3.04~0.23	301~14.7

Note: Results are simulated. Data is available through 100 MHz.

CROSS-SECTION