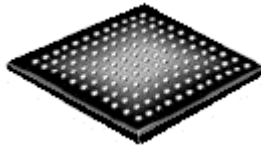




BGA Solder Ball



BGA Solder Ball

Standard Lead Free Alloy (Pb Free)

SAC	Composition	Typical Device Types	Special Order	RoHS
SAC305	Sn96.5 Ag3.0 Cu0.5	LBGA, PBGA, CBGA	-	RoHS
SAC405	Sn95.5 Ag4.0 Cu0.5	FBGA, PBGA, SBGA	CBGA, LBGA	RoHS

RoHS = Lead Free

Special Lead Free Alloy (Pb Free)

SAC	Composition	Typical Device Types	Special Order	RoHS
SAC387	Sn95.5 Ag3.8 Cu0.7	None	LBGA	RoHS
SAC350	Sn96.5 Ag3.5	None	LBGA	RoHS
SAC266	Sn96.8 Ag2.6 Cu0.6	None	LBGA	RoHS
SAC125	Sn98.3 Ag1.2 Cu0.5	None	LBGA	RoHS
SAC105	Sn98.5 Ag1.0 Cu0.5	None	LBGA	RoHS
SAC101	Sn98.9 Ag1.0 Cu0.1	None	LBGA	RoHS
-	Sn80.8 Sb18 Ni1.2	None	LBGA	RoHS
-	Sn98.3 Ag1.2 Cu0.5	None	LBGA	RoHS
-	Sn98.9 Ag1.0 Cu0.5	None	LBGA	RoHS

RoHS = Lead Free

Non Lead Free Alloy

	Composition	Typical Device Types	Special Order
-	Sn63 Pb37	LBGA, PBGA, FBGA, SBGA	-
-	Sn62 Pb36 Ag2.0	CBGA	LBGA
-	Sn10 Pb90	CBGA	-

Ball Diameter

Ball (mm)	Ball (Mil)	Typical BGA Pitch	Special BGA Pitch
0.76mm	30 mil	1.27 ~ 1.5mm	-
0.635mm	25 mil	1.0mm	-
0.50mm	20 mil	1.0mm	0.8mm
0.45mm	18 mil	0.8mm	1.0mm

0.40mm	15 mil	0.8mm	1.0mm
0.35mm	14 mil	0.65 ~ 0.75mm	-
0.30mm	12 mil	0.5mm	0.65 ~ 0.75mm
0.25mm	10mil	0.4mm	-
0.20mm	8mil	0.3mm	-
0.15mm	6mil	-	-
0.10mm	4mil	-	-

Typical Sphere Tolerance (pre-reflow):
0.635~0.760mm = +/- 0.015mm
0.200~0.600mm = +/- 0.010mm
0.100~0.150mm = +/- 0.005mm

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