

GSA/GSB

Au Bonding Wire for Stable Stitch Bond 安定した2nd接合が可能なAuボンディングワイヤ



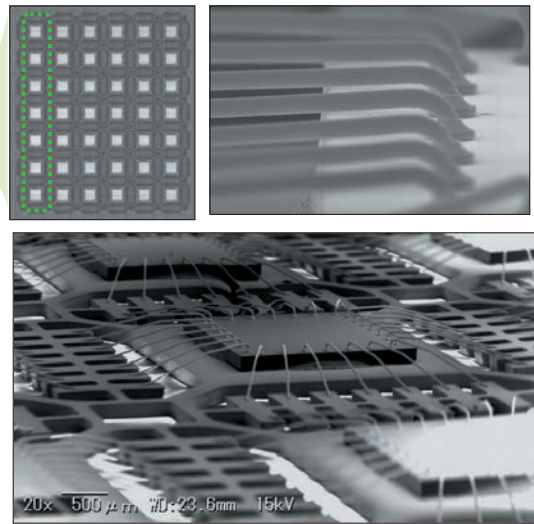
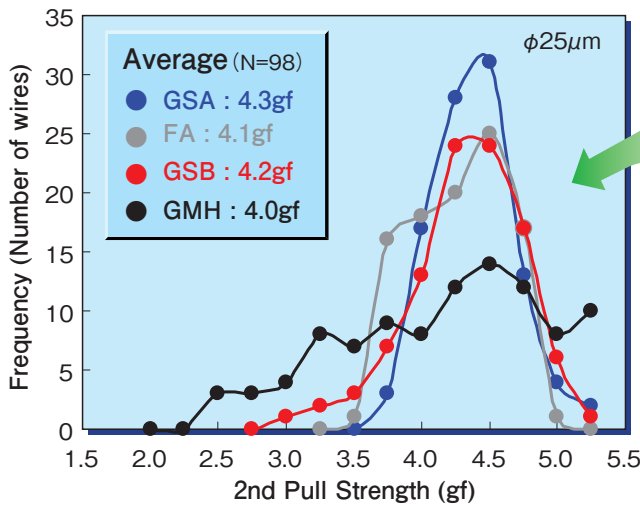
Characteristics

- Stable stitch bond on QFN, QFPBGA packages.
- Good 2nd bond stitch remaining after pull test.
- Good squashed ball shape and excellent FAB softness.

特徴

- 安定したステッチ接合性によりQFN, QFP, BGAパッケージでも局所的な不着が発生しにくい。
- ステッチプル試験後の金残りが多く、ステッチ接合部でのボンドリフトが少ない。
- 圧着径のばらつきが少なく、真円性が良好且つFABが軟らかく圧着ボールが変形しやすい。

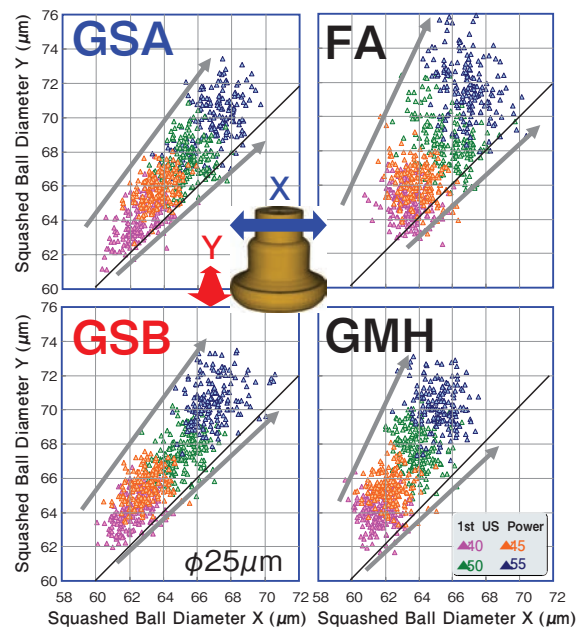
Stable Stitch Bond on QFN Packages (PPF, 175°C)



After Stitch Pull Test

USG Current (mA)	50.0	47.5	45.0	42.5
Force (g)	35	34	33	32
GSA BL.106mN				
FA BL.106mN				
GSB BL.118mN				
GMH BL.118mN				

Squashed Ball Roundness



GSA Data Sheet
General Properties

Wire Diameter (um)	15	18	20	23	25	28	30	32	35	38	ASTM F205-94
Tolerance (um)	+/- 1.0										
Weight (mg/200mm)	0.595-0.777	0.877-1.096	1.096-1.338	1.469-1.748	1.748-2.052	2.212-2.552	2.552-2.916	2.916-3.305	3.508-3.933	4.155-4.616	
Breaking Load (gf)	Room Temp.										Tensile Tester Jaw Length = 100mm Production Guide 2012-3 10H
Elongation (%)	2.5 - 5.3	3.6 - 7.6	4.5 - 9.4	5.9 - 12.4	7.0 - 14.7	8.7 - 18.4	10.0 - 21.2	11.4 - 24.1	13.6 - 28.8	16.1 - 34.0	
	1.0 - 6.0		1.0 - 7.0			1.5 - 8.5					

Physical Property

Hardness (HV)	Free Air Ball	30 - 50										Vickers tester
	HAZ	40 - 70										
	Wire	60 - 80										
Density (g/cm ³)	19.32										ASTM	
Resistivity (uΩcm) @ 20°C	2.3										4 terminal method	
Fusing Current (A, Length=3mm,10sec)	0.3*	0.4	0.5	0.7	0.8	1.1	1.2	1.4	1.7	2.0	Theoretical Value (※Out of applicable W.D.)	
Electrical resistance (Ω, Length 10mm, Room Temp.)	1.14 - 1.49	0.81 - 1.01	0.66 - 0.81	0.51 - 0.61	0.43 - 0.51	0.35 - 0.40	0.30 - 0.35	0.27 - 0.30	0.23 - 0.25	0.19 - 0.21	Calculated Value	
Thermal Conductivity @ 20°C (W/m/K)	315.5										Metals Data Book	
Linear Expansion Coefficient (0-100°C) (ppm/K)	14.1										Metals Data Book	
Elastic Modulus (GPa)	60 - 80										Tensile Tester	
Melting Point (°C)	1,063										Metals Data Book	

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Breaking Load (gf)	Room Temp.										Tensile Tester Jaw Length = 100mm Production Guide 2012-3 10H
Elongation (%)	2.9 - 5.7	4.2 - 8.2	5.2 - 10.1	6.9 - 13.4	8.1 - 15.9	10.2 - 19.9	11.7 - 22.8	13.3 - 26.0	15.9 - 31.1	18.8 - 36.6	
	1.0 - 6.0		1.0 - 7.0			1.5 - 8.5					

Physical Property

Hardness (HV)	Free Air Ball	30 - 50										Vickers tester
	HAZ	40 - 80										
	Wire	70 - 90										
Density (g/cm ³)	19.32										ASTM	
Resistivity (uΩcm) @ 20°C	2.3										4 terminal method	
Fusing Current (A, Length=3mm,10sec)	0.3*	0.4	0.5	0.7	0.8	1.1	1.2	1.4	1.7	2.0	Theoretical Value (※Out of applicable W.D.)	
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