

GFC/GFD

Au Bonding Wire for Fine Pitch Bonding ファインピッチ実装対応Auボンディングワイヤ



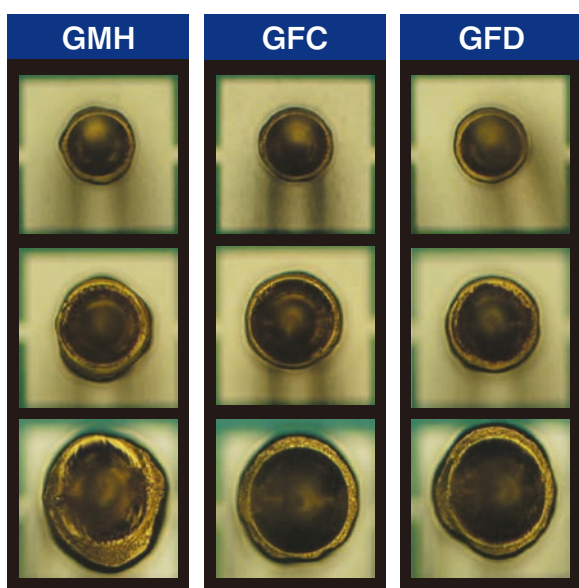
Characteristics

- Small deformation of squashed ball by ultrasonic frequency.
- Wide actual bond area with suitable ultrasonic power.
- Applicable for narrow pad pitch bonding

特 徴

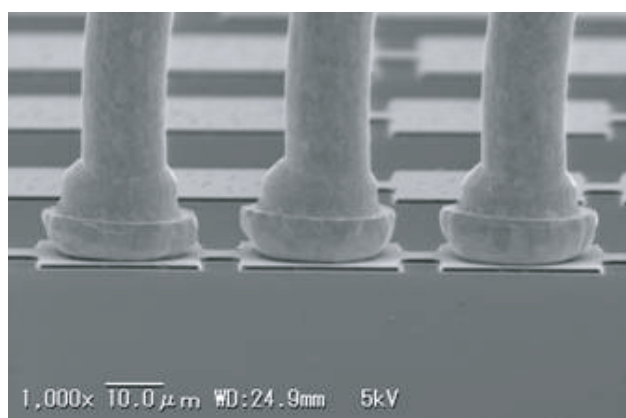
- ボンディング時の超音波による圧着ボールの変形が少ない
- 必要十分な超音波を印加できるため良好な接合状態が得られる。
- 様々なパッドピッチボンディングに対応。

Ball Shape



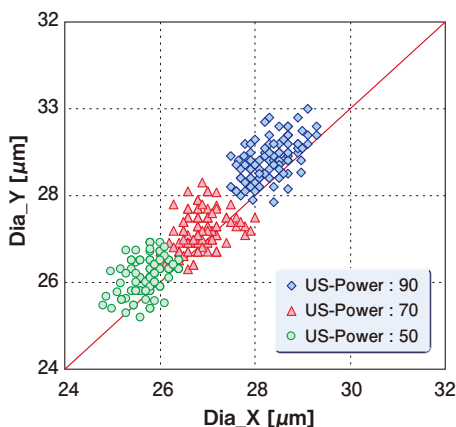
Upper FAB:38 μ m SBD:45 μ m
 Middle FAB:51 μ m SBD:60 μ m
 Lower FAB:62 μ m SBD:75 μ m

35 μ m BPP Bonding

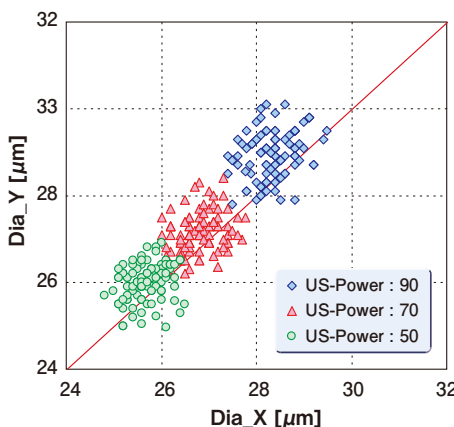


Wire : GFC ϕ 15 μ m
 Bonder : Shinkawa UTC-3000
 Pad Opening : 28 μ m

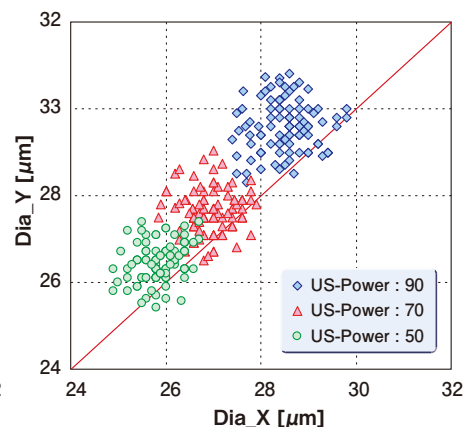
Scatter Diagram at 35 μ m BPP Bonding



GFC



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GMH

Wire Diameter : ϕ 15 μ m

GFC Data Sheet
General Properties

Wire Diameter (um)	15	18	20	23	25	28	30	32	35	38
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)	2.8 - 5.6	4.0 - 8.0	5.0 - 9.9	6.5 - 13.1	7.7 - 15.5	9.7 - 19.4	11.1 - 22.3	12.7 - 25.3	15.2 - 30.3	17.9 - 35.7
Elongation (%)	Room Temp. 1.0 - 7.0			2.0 - 7.0				2.0 - 8.0		

Physical Property

Hardness (HV)	Free Air Ball	35 - 55									
	HAZ	45 - 75									
	Wire	65 - 85									
Density (g/cm ³)	19.32										
Resistivity (uΩ cm) @ 20°C	2.3										
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	
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	
Thermal Conductivity @ 20°C (W/m/K)	315.5										
Linear Expansion Coefficient (0-100°C) (ppm/K)	14.1										
Elastic Modulus (GPa)	65 - 85										
Melting Point (°C)	1,063										

TDS GFC rev.2 20230524

GFD Data Sheet
General Properties

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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)	3.3 - 6.1	4.8 - 8.8	5.9 - 10.8	7.8 - 14.3	9.2 - 16.9	11.5 - 21.2	13.2 - 24.4	15.1 - 27.7	18.0 - 33.2	21.2 - 39.1
Elongation (%)	Room Temp. 1.0 - 7.0			2.0 - 7.0				2.0 - 8.0		

Physical Property

Hardness (HV)	Free Air Ball	35 - 55									
	HAZ	45 - 85									
	Wire	75 - 95									
Density (g/cm ³)	19.32										
Resistivity (uΩ cm) @ 20°C	2.3										
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	
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Melting Point (°C)	1,063										

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