

Y/FA

Standard Soft Au Bonding Wire

軟質系Auボンディングワイヤ



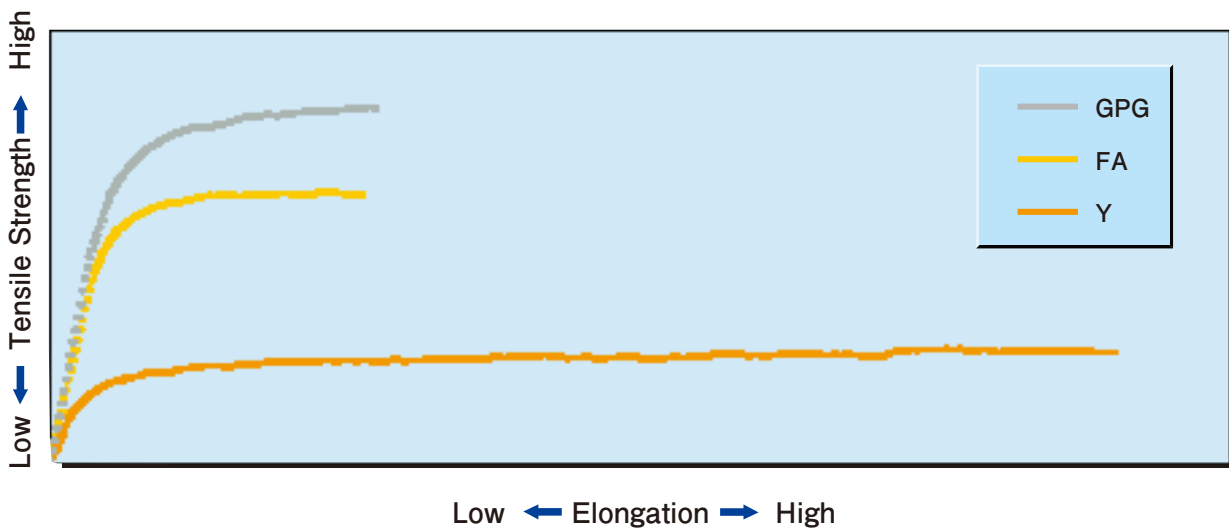
Characteristics

- **Y Type**
Good performance under high thermal stress environment.
- **FA Type**
Soft touch on bond pads.

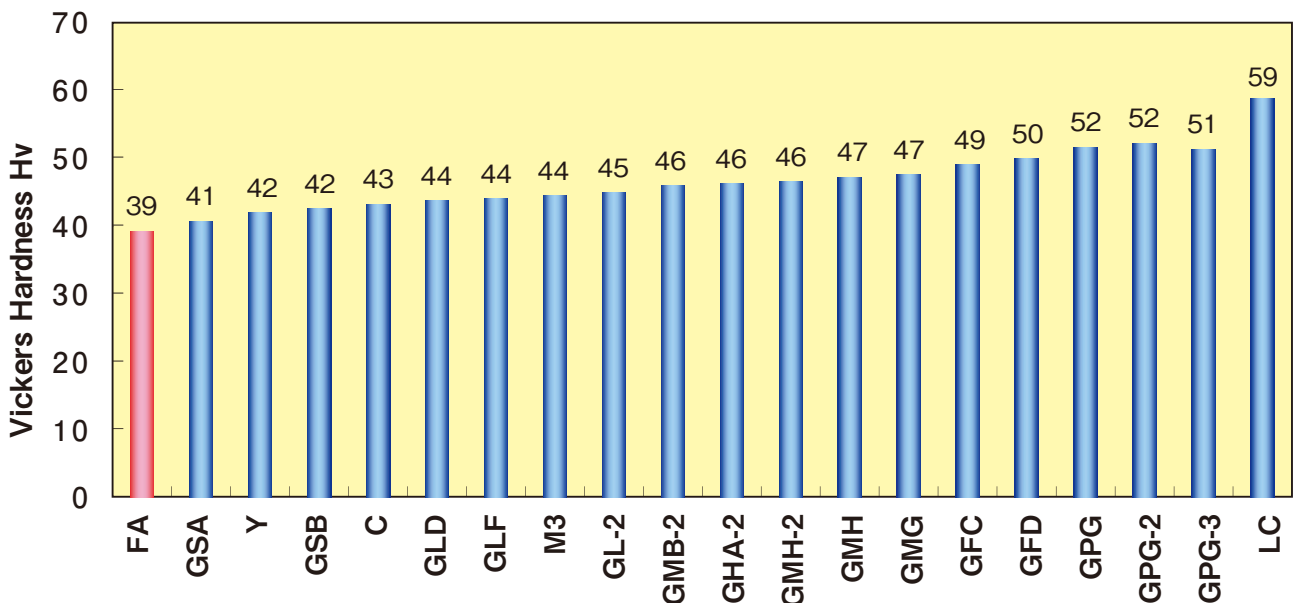
特 徴

- **Yタイプ**
LEDなど高い熱応力の環境下で優れた性能を示す。
- **FAタイプ**
チップダメージの抑制に効果がある。

Mechanical Property at 250°C



FAB Vickers Hardness



Test Load : 10gf, Test Speed : 10μm/sec, Hold Time : 10sec

Y 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)	-	0.877-1.096	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.	-	2.5 - 5.0	3.5 - 6.6	5.2 - 9.3	6.5 - 11.4	8.5 - 14.7	10.0 - 17.1	11.4 - 19.5	14.0 - 23.6	17.6 - 28.9	Tensile Tester Jaw Length = 100mm Production Guide 2012-3 10H
Elongation (%)		-	2.0 - 5.0		2.0 - 6.0		2.0 - 7.0		2.0 - 8.0			

Physical Property

Hardness (HV)	Free Air Ball	30 - 50										Vickers tester
	HAZ	40 - 60										
	Wire	50 - 70										
Density (g/cm ³)	19.32										ASTM	
Resistivity (uΩcm) @ 20°C	2.3										4 terminal method	
Fusing Current (A, Length=3mm,10sec)	-	0.4	0.5	0.7	0.8	1.1	1.2	1.4	1.7	2.0	IEEE Trans. Comp., Hybrids, Manu. Tech., Vol.6, no.2, P.209, JUNE 1983.	
Electrical resistance (Ω, Length 10mm, Room Temp.)	-	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)	50 - 70										Tensile Tester	
Melting Point (°C)	1,063										Metals Data Book	

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FA 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.	2.8 - 4.9	4.0 - 7.0	5.0 - 8.7	6.5 - 11.5	7.7 - 13.5	9.7 - 17.0	11.1 - 19.5	12.7 - 22.2	15.2 - 26.5	17.9 - 31.3	Tensile Tester Jaw Length = 100mm Production Guide 2012-3 10H
Elongation (%)		1.0 - 5.0	2.0 - 6.0		2.0 - 7.0		2.0 - 9.0	3.0 - 9.0		4.0 - 12.0		

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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