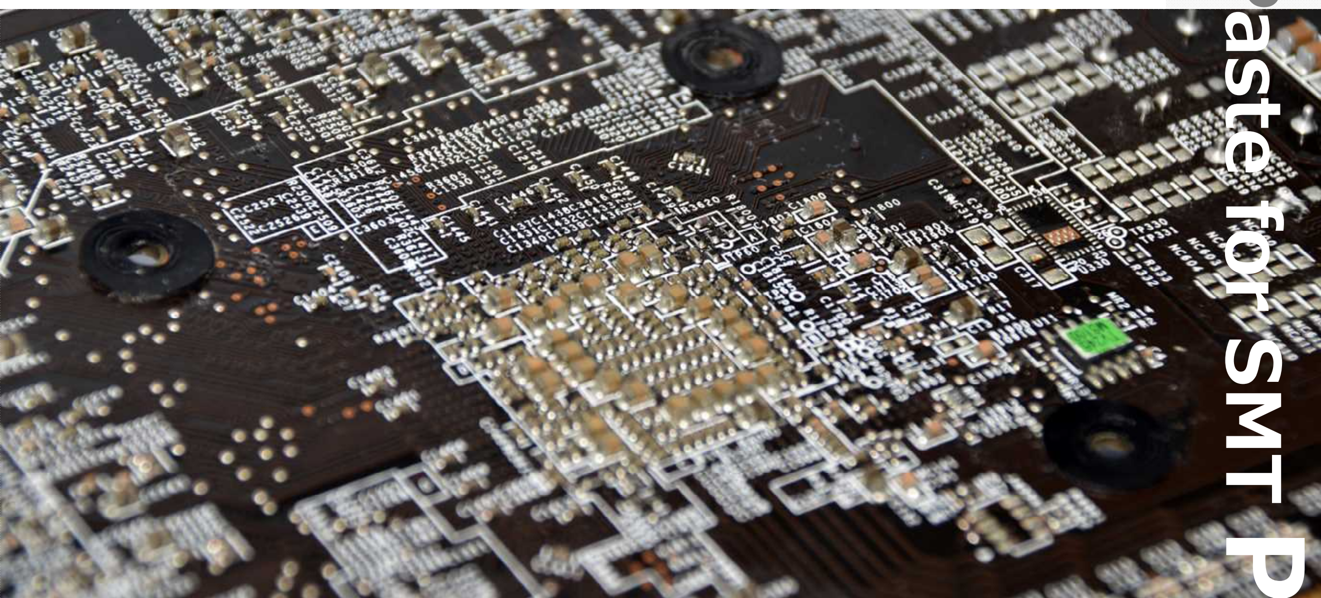
Nihon Handa Co.,Ltd. Head Office : 16F ARCA CENTRAL 2-1 Kinshi 1-Chome, Sumida-ku, Tokyo 130-0013, JAPAN Tel.+81-3-3624-5771 Fax.+81-3-3624-5775

Lead free solder paste for SMT

PF305-155TO

Halogen-free High-performance Solder Paste

- High-performance general-purpose product for versatile application
- High void suppression effect at back electrodes
- Prevent chip-side balls



Solder Paste for SMT PF305-155TO

General Characteristic

Item		Representative value	Test method
Alloy Composition		Sn-3.0Ag-0.5Cu	JIS Z 3282
Particle Size		20 to 38μm	–
Flux Content		11.5wt%	JIS Z 3197
Halide Content		0.03%	JIS Z 3197
Flux Type		ROL0	IPC J-STD-004
Copper Plate Corrosion Test		No Corrosion	JIS Z 3197
Silver Chromate Paper Test		No Change	JIS Z 3197
Corrosion Test with Copper Mirror		No Change to Copper Mirror	JIS Z 3197
Insulation Resistance Test	40℃90%RH after 168H	1.0×10^{11} Ω or more	JIS Z 3197
	85℃85%RH after 168H	5.0×10^{8} Ω or more	JIS Z 3197
Tack time at 100gf or more		24 hours	JIS Z 3284
Fluid Characteristics	Viscosity	200 Pa・s	JIS Z 3284
	Ti-value	0.55	JIS Z 3284

The above figures are representative values, not guaranteed specification. Available customization for alloy composition, particle size and flux content.
Please ask our sales staff for more details.

2020.01.001

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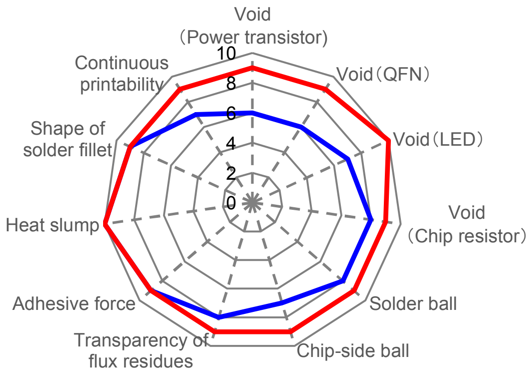


- Low void performance regardless of parts or plating
- Reducing chip-side balls
- Good workability with high tackiness and good printed shape

Superior performance applicable with versatile requirements thanks to advanced technology of flux

—PF305-155TO
—Conventional product

High void suppression effect at back electrodes

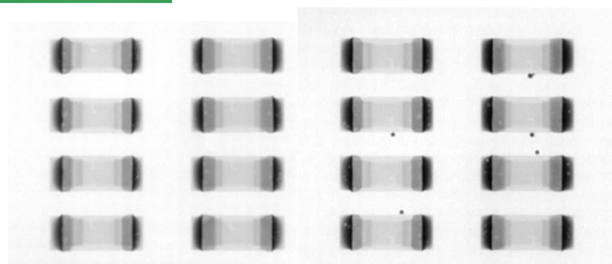
Reducing void-occurrence to apply power transistor, LED and QFN packages

Power transistor		LED		QFN	
PF305-155TO	Conventional product	PF305-155TO	Conventional product	PF305-155TO	Conventional product
4.5mm, 4.0mm		2.7mm, 0.5mm, 1.0mm		2.1mm, 2.1mm	
Void ration: PF305-155TO 5.8%, Conventional Product 12.2% (0%–20%)		Void ratio: PF305-155TO 3.1%, Conventional Product 7.5% (0%–20%)		Void ratio: PF305-155TO 6.1%, Conventional Product 12.2% (0%–20%)	

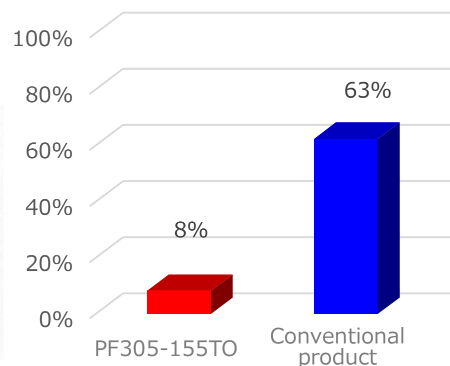
【Test Condition】 Reflow : Air ; Thickness of stencil : 0.1mm; Preheat Temp. : 150 to 190deg. C, 100sec. ; Peak Temp. : 240deg. C, 40sec. or more for 220deg. C

Reducible occurrence of chip-side balls

Chip side balls can be restrained even with excessive volume of paste and much pressed chip



PF305-155TO



Conventional product

	Ratio to appear chip-side ball
PF305-155TO	8%
Conventional product	63%

Ratio to appear chip-side ball

【Test Condition】
Reflow : Air; Preheat temp. : 150 to 190deg. C for 100sec.; Peak temp. : for 240℃, 40sec. For 220deg.C or more;
Mask Thickness : 0.2mm; Parts : 3216 Resistor; Push le : 0.2mm