

APCA

Engineered for
Performance in
Extreme Conditions

Standard Power PBU

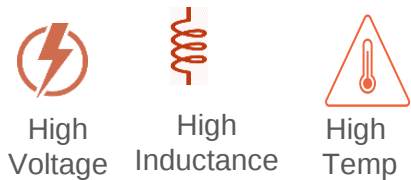
2025 Oct



High Voltage High Inductance - APCA Series

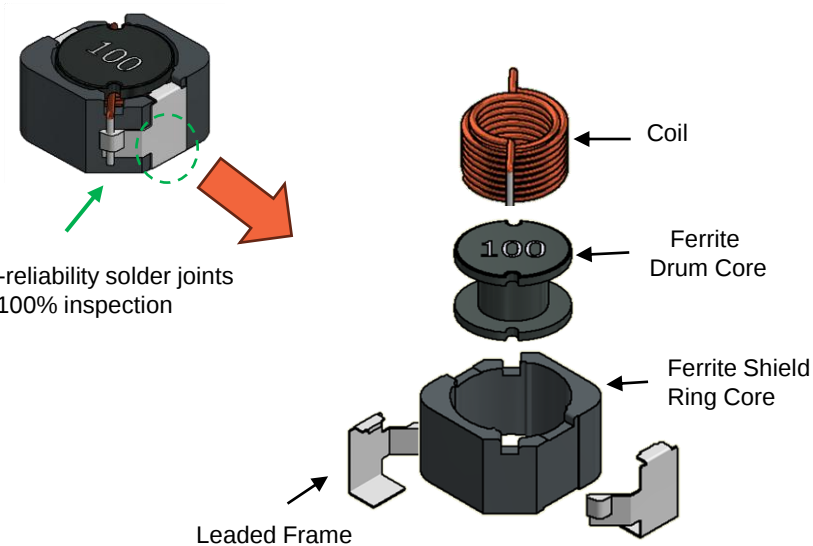
Features :

Ferrite MnZn, NiZn high permeability core, for high inductance 1000~uH
High insulation resistance for high break down voltage 1000V~
High operating temperature ~ 155°C range, no thermal aging
AEC-Q200



Applications :

Networking, Lighting, Back/Boost Converter, BMS, MCU, infotainment, Dashboard, ADAS, Lamp, Media player, Audio class D

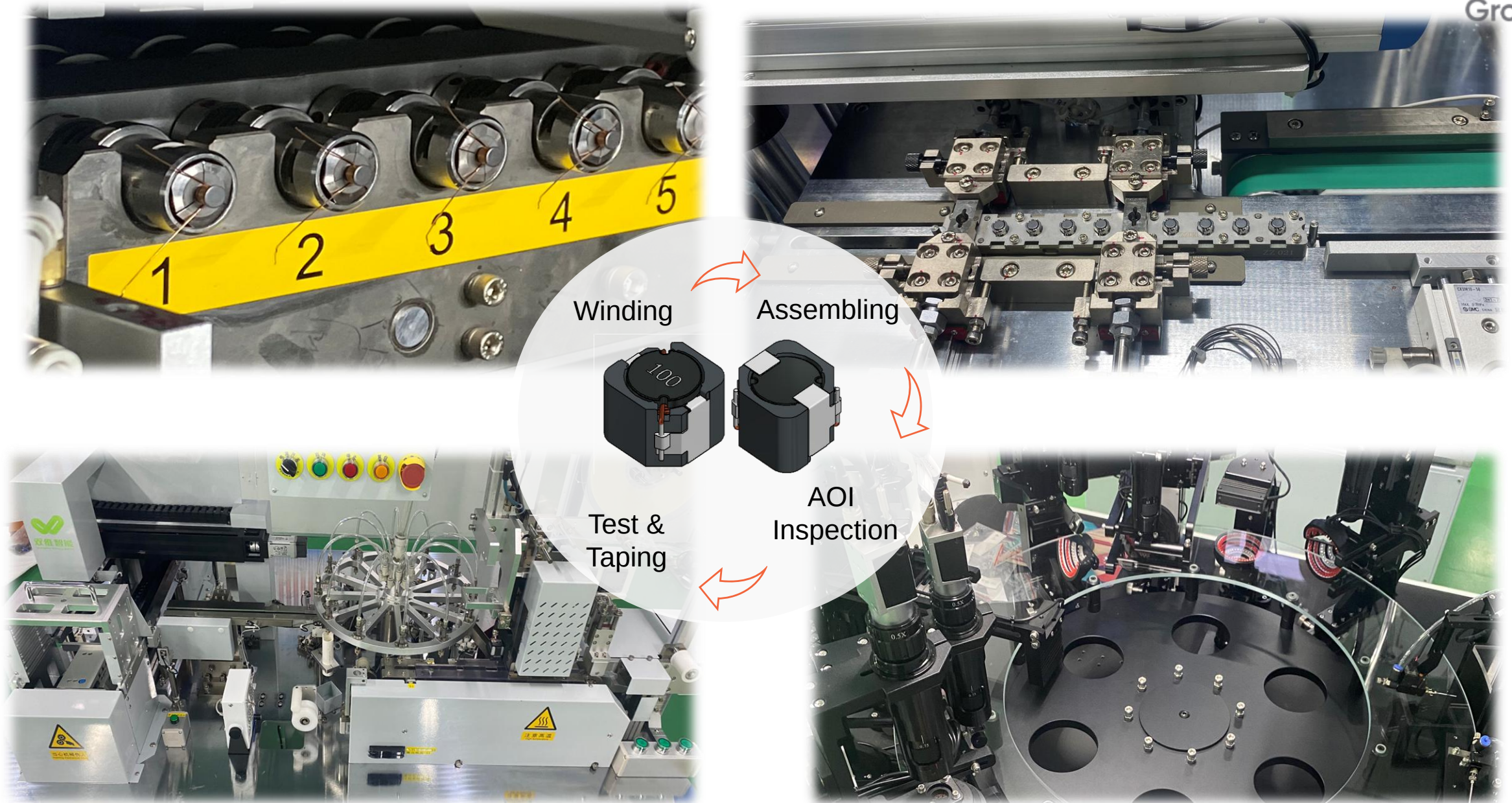


The drum core with the coil wound on it is assembled with the shielded core, and the welding method for connecting the wire and terminals achieves high reliability and uses AOI for 100% inspection of weld points.

Electrical Specifications

PT/NO.	Dimensions (mm)	Inductance L(μH)	Tolerance (±%)	Test Frequency	Resistance RDC(Ω) Typ.	Rated DC Current	
						Isat(A)	Irms(A)
APCA_060645	6 x 6.3 x 4.5	1 - 470	20,30	100kHz	0.0143 - 1.56	0.25 - 6.0	0.41 - 4.8
APCA_070745	7 x 7.4 x 4.5	1 – 1000	20,30	100kHz	0.0117 – 2.8	0.14 - 7.6	0.25 - 6.5
APCA_101065	10.3 x 10 x 6.5	2.2 – 1000	20,30	100kHz	0.071 – 1.55	0.56 - 11	0.65 – 8.5
APCA_121280	12.5 x 12.3 x 8	1.5 - 1000	20,30	100kHz	0.055 – 1.05	0.85 - 23.5	0.75 - 10.5

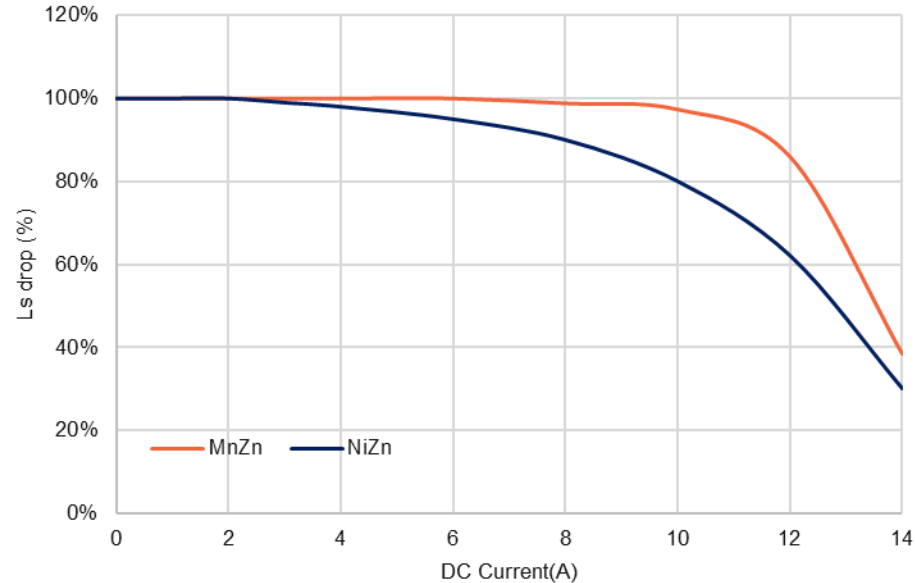
APCA Automatic Production Line (7x7x4.5mm)



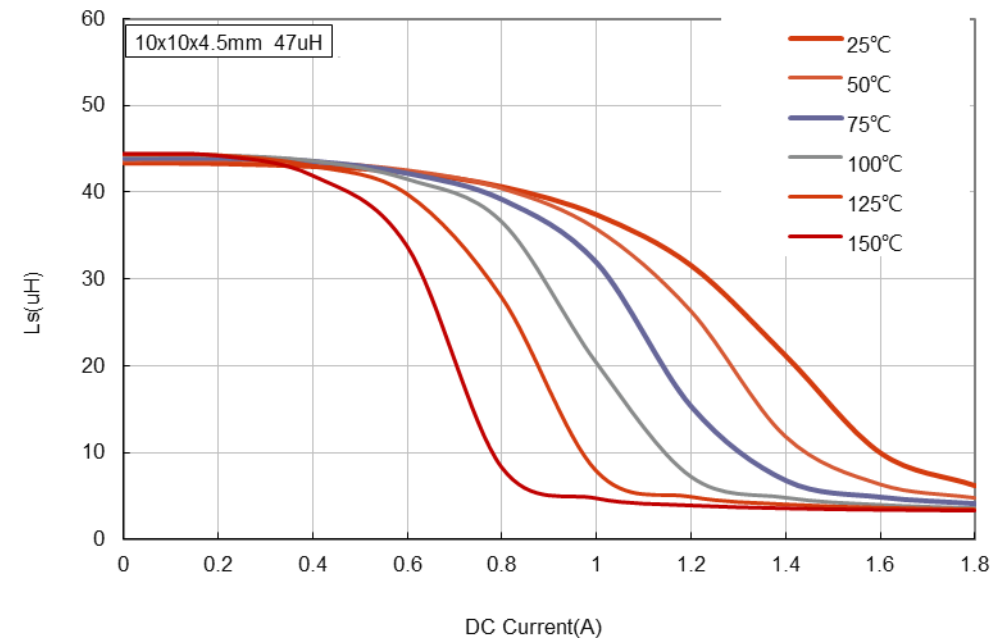
Electrical Characteristics

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DC bias characteristic (Ni-Zn core vs. Mn-Zn core)

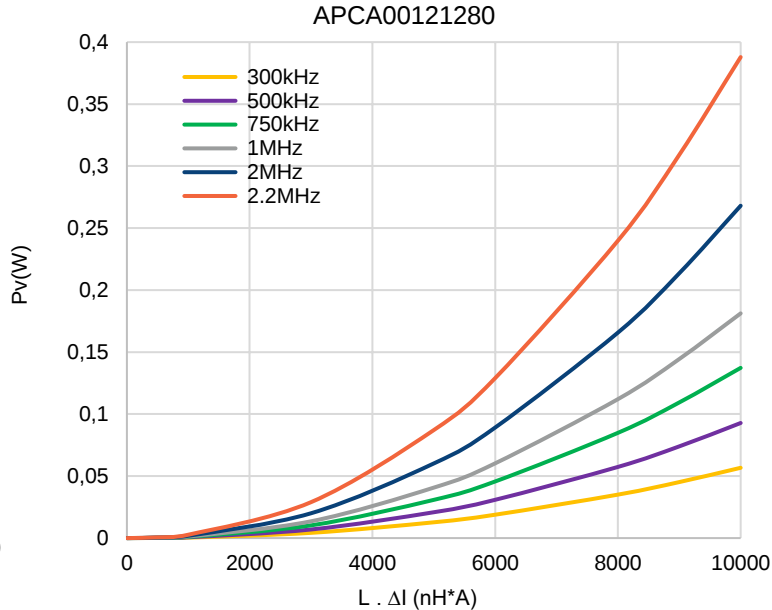
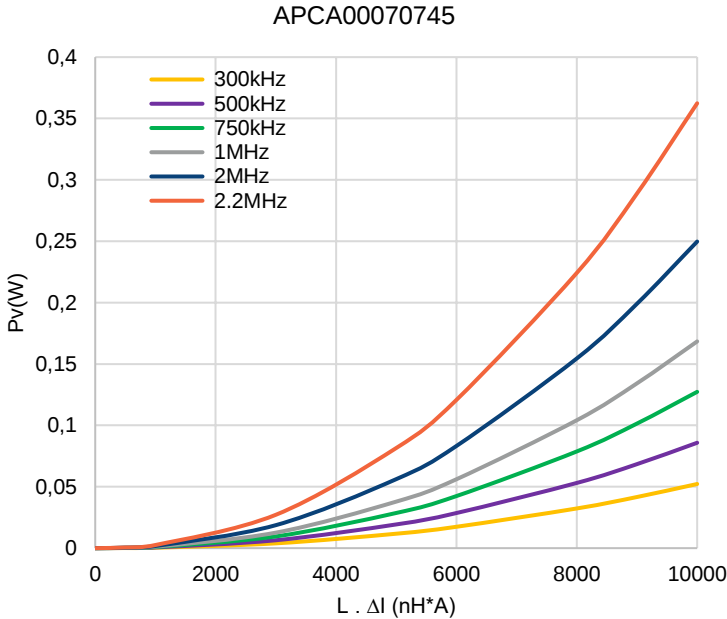
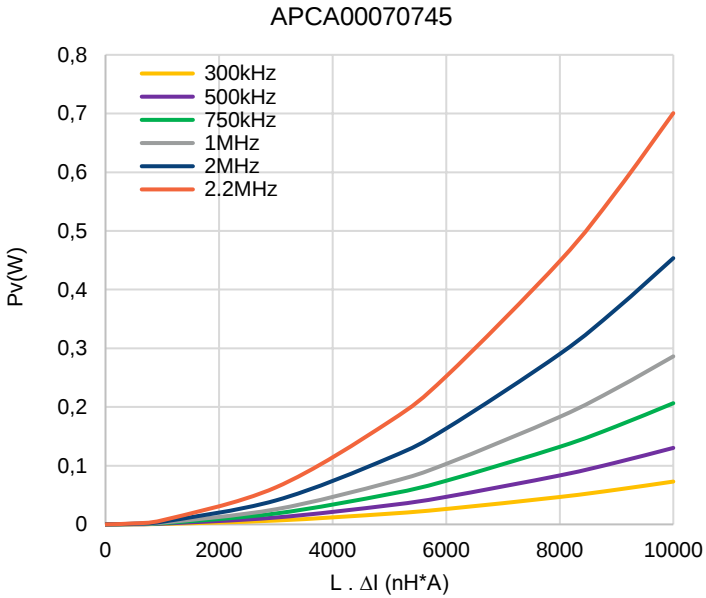
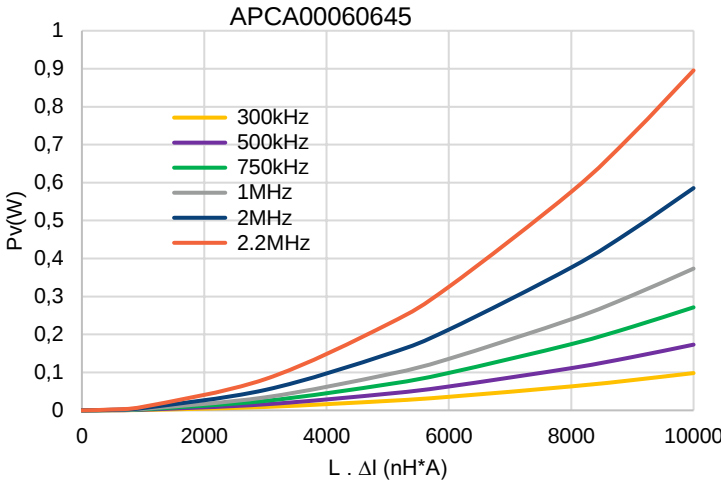


DC bias characteristic with ambient temperature



AC Power Lost Chart

PT/NO.	Steinmetz Equation	K	a	b
APCA_060645	$P_v = K \cdot f^a \cdot \Delta B^b$ ($\Delta B = L \cdot \Delta I$)	9.7865E-16	1.109425	1.981258
APCA_070745		4.4332E-16	1.135195	1.999714
APCA_101065		6.12791E-16	0.971965	2.151816
APCA_121280		7.02606E-16	0.965298	2.154922





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Thank you! 謝謝你!



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