

SMT Power Inductors

ER11 INDUCTOR- PH9499.XXXCNL Series



- ④ 3.5Arms Quasi Resonant Topology Input Inductor
- ④ High Frequency Litz Wire Winding
- ④ $R_{ac}/R_{dc} < 1.25$ @ 1MHz
- ④ 1.1mm Offset for underside component mounting

Electrical Specifications @ 25°C — Operating Temperature - 40°C to +125°C⁴

Part Number	Inductance ¹ @ 0A _{DC} ($\mu\text{H} \pm 6\%$)	DCR (mOHMS MAX)	I _{rated} ² (ADC)	Saturation Current ³ (A TYP)	
				25°C	100°C
PH9499.951CNLT	0.95	22.0	3.5	28	22
PH9499.102CNLT	1.05	22.0	3.5	25	20
PH9499.122CNLT	1.25	22.0	3.5	22	18

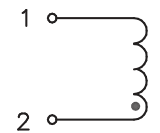
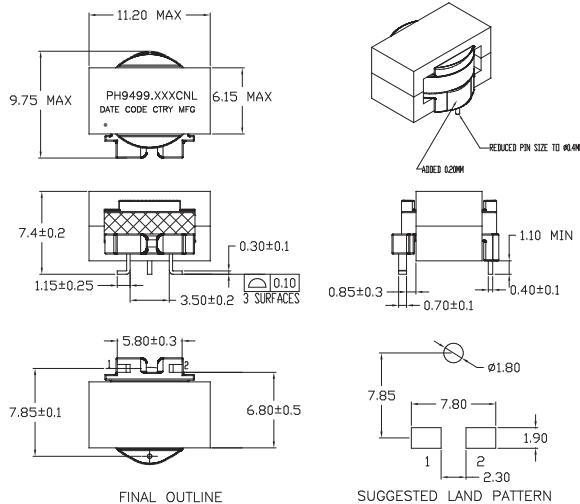
NOTES:

- Inductance measured at 100kHz, 100mVrms.
- The heating current is the DC current which causes the part temperature to increase by approximately 40°C when used in a typical application.
- The saturation current is the typical current which causes the inductance to drop by 10% at the stated ambient temperatures (25°C, 100°C). This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effects) to the component.
- In high volt*time applications, additional heating in the component can occur due to core losses in the inductor which may necessitate derating the current in order to limit the temperature rise of the component. The core loss curves and temperature rise curves can be used, as following:
 $P_{core(W)} = 2.66E-14 * f^2 * 2.153 * (L_p * I_{pk} / 0.06)^2 * 3.24 (100^\circ\text{C})$
 f: working frequency in KHz.
 L_p: inductance in μH
 I_{pk}: ripple current in A
- The total core and copper losses and the resultant temperature rise can be estimated using the curves in pages 3 & 4. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

Mechanical

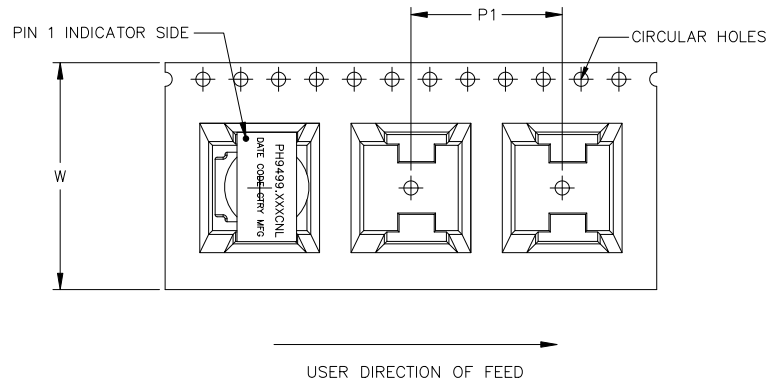
Schematic

PH9499.XXXCNL



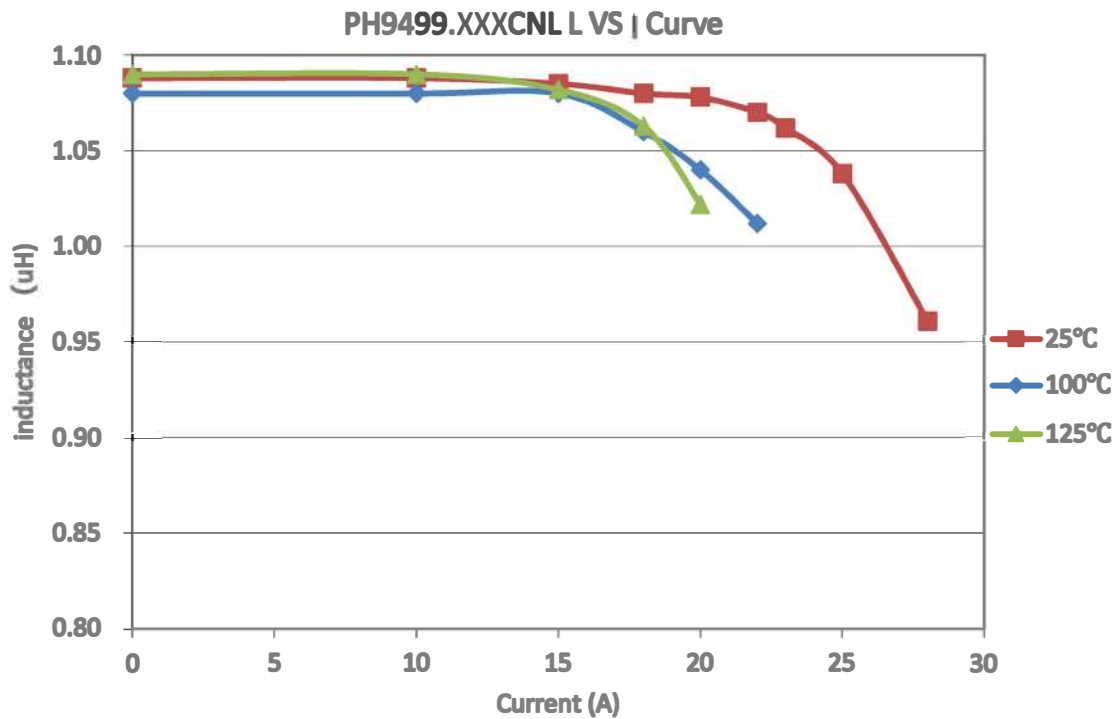
Weight: 1.5grms
Tape & Reel: 400/ Reel
Dimensions: mm
 Unless otherwise specified, all tolerances are ± 0.25

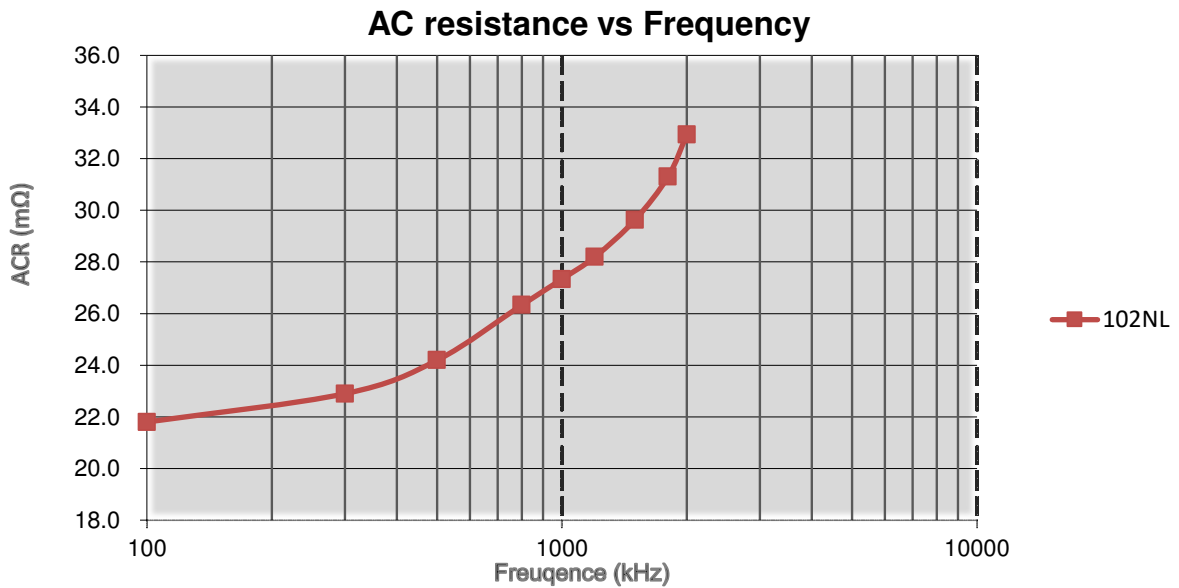
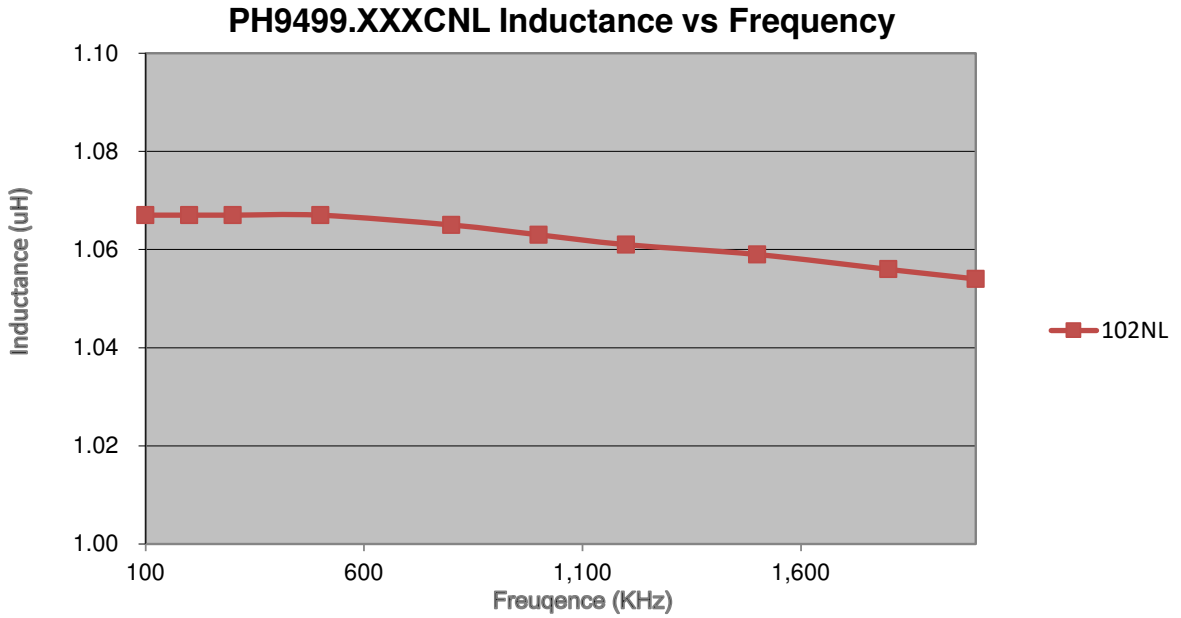
TAPE & REEL INFO



SURFACE MOUNTING TYPE, REEL/TAPE LIST

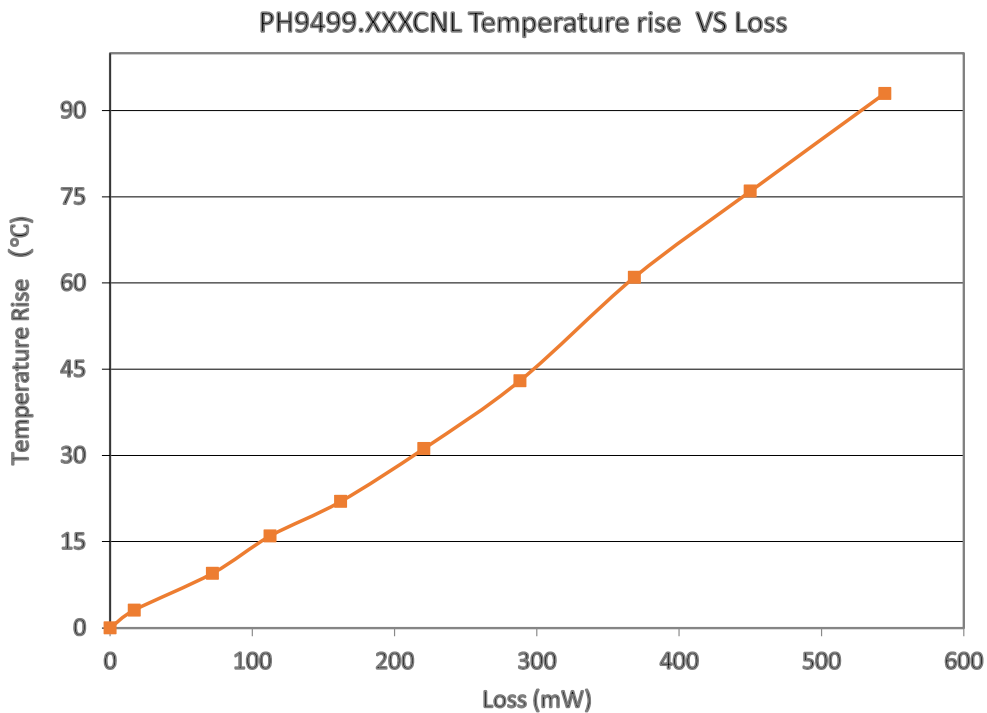
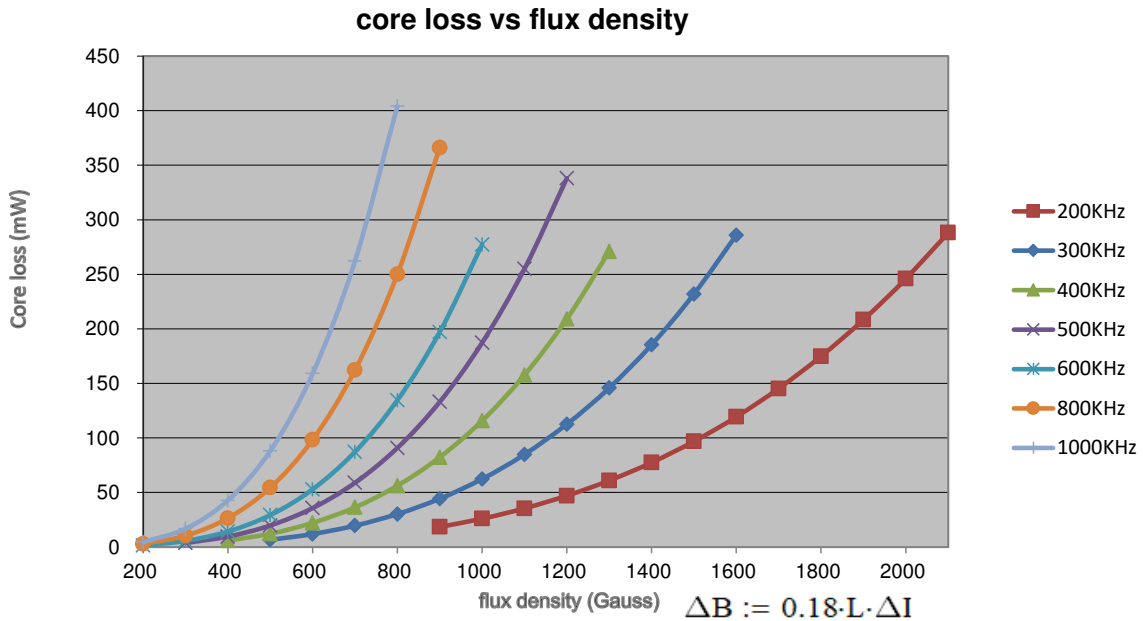
TYPE	REEL SIZE (mm)		QTY
	W \pm 0.30	P1 \pm 0.1	PCS/REEL
PH9499.XXXCNL	24.0	16.0	400





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For More Information:

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