



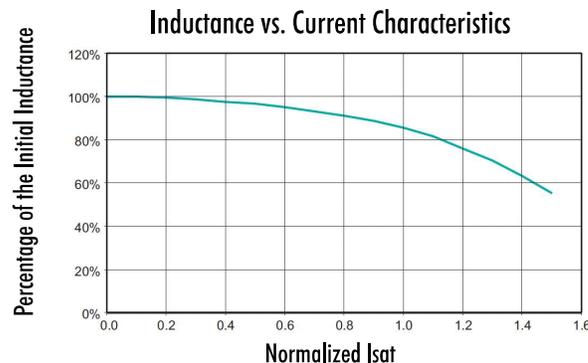
- ⊗ Height: 4mm MAX
- ⊗ Footprint: 10.5mm x 10.5mm MAX
- ⊗ Current Rating: up to 7.6A
- ⊗ Inductance Range: 0.62μH to 278μH
- ⊗ Operating Temperature: -55°C to +130°C
- ⊗ Lead Finish: Sn63/Pb37
- ⊗ Moisture Sensitivity Level: 1

Electrical Specifications @ 25°C

Part Number	Inductance @ Rated TYP (μH)	I _{rated} ⁴ (A)	DCR (mΩ)		Inductance @ 0 ADC (μH)	Saturation Current ⁵ @ 25°C (A)	Heating Current ⁶ (A)
			TYP	MAX			
PL9301 ³	0.62	7.6	4.2	5.5	0.68	10	7.6
PL9302 ³	1.2	7.1	5.6	7.3	1.3	8	7.1
PL9303 ³	1.9	5.8	8.4	10.9	2.2	6.15	5.8
PL9304 ³	2.8	5.2	10.2	13.3	3.3	5.8	5.2
PL9305 ³	4.0	4.7	15.1	19.6	4.7	5.4	4.7
PL9306 ³	5.4	3.7	20.8	27.0	6.0	4.5	3.7
PL9307 ³	6.9	3.5	23.7	30.8	7.6	4.0	3.5
PL9308	8.0	3.4	26.5	33.2	10	3.8	3.4
PL9309	11	3.0	36.1	45.2	12	3.4	3.0
PL9310	12	2.8	39.5	49.4	15	3.1	2.8
PL9311	19	2.3	62	77	22	2.8	2.3
PL9312	25	2.1	71	89	27	2.3	2.1
PL9313	38	1.65	113	142	47	2.1	1.65
PL9314	55	1.32	170	212	68	1.5	1.32
PL9315	83	1.10	262	328	100	1.35	1.10
PL9316	123	0.88	400	500	150	1.15	0.88
PL9317	178	0.73	591	739	220	0.92	0.73
PL9318	278	0.60	906	1133	330	0.70	0.60

NOTES:

1. Add suffix "NL" for RoHS compliant version; i.e. PL9301 becomes **PL9301NL**. NL parts have 100% SN Lead Finish (MSL:4)
2. For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. **PL9301T**.
3. Inductance at OADC tolerance on indicated part numbers is ±25%; tolerance is ±20% on all other parts.
4. Temperature of the component (ambient plus temperature rise) must be within specified operating temperature range.
5. The rated current as listed is either the saturation current or the heating current depending on which value is lower.
6. The saturation current is the current which causes the inductance to drop to 75% of its initial inductance at zero bias. This current is determined by placing the component at room ambient (25°C), and applying a short duration pulse current (to eliminate self-heating effects) to the component.
7. The heating current is the DC current, which causes the temperature of the part to increase by approximately 40°C. This current is determined by extending the terminals of the component with 30mm length 28 gauge buss wires and applying the current to the device for 30 minutes. The temperature is measured by placing the thermo-couple between the winding and the shield.
8. 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. In order to determine the approximate total loss (or temperature rise) for a given application, both copper losses and core losses should be taken into account.

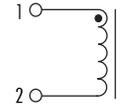
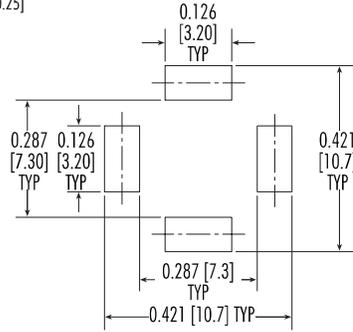
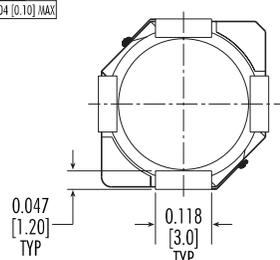
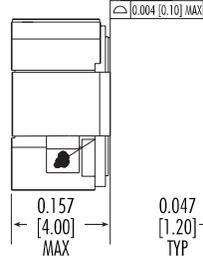
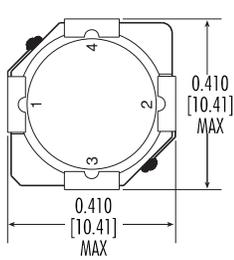


Mechanicals

Electrical Schematics

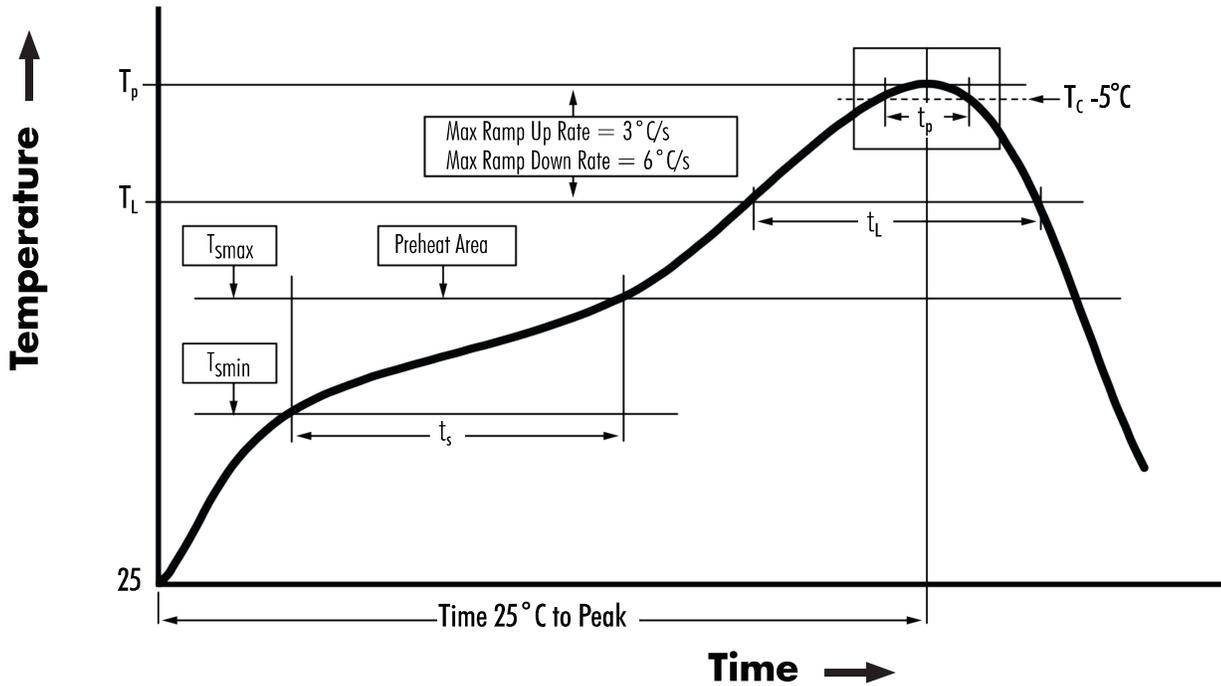
PL93XX

Dimensions: inch [mm]
 Tolerance (unless otherwise specified): ±0.010 [0.25]



NOTE: Pin 3 and Pin 4 are for mechanical connection only.

Recommended Reflow Profile (Based on J-STD-020D)



T_{SMIN} (°C)	T_{SMAX} (°C)	T_L (°C)	T_P (°C MAX)	t_S (s)	t_L (s)	t_P (s MAX)	Ramp-up rate (T_L to T_P)	Ramp-down rate (T_P to T_L)	Time 25°C to peak temperature (s MAX)
100	150	183	235	60 - 120	60 - 150	20	3°C/s MAX	6°C/s MAX	360

NOTES:

1. All temperatures measured on the package leads.
2. Maximum number of reflow cycles not to exceed 2.



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M120.E (26MAR24)

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