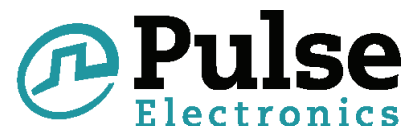






SMT Power Inductors

Unshielded Drum Core - P0648 Series



-  **Height:** 5.0mm max
-  **Footprint:** 13.1mm x 13.1mm
-  **Current Rating:** up to 12.2A
-  **Inductance Range:** 1μH to 1030μH

Electrical Specifications @ 25°C - Operating Temperature -40°C to +130°C

Part ^{6,7} Number	Inductance @ IPK ADC (μH ± 20%)	I _{rated} ⁵ (A)	DCR (MAX) (mΩ)	Saturation Current (A) @ 25°C	Heating Current (A)
P0648.102NL	1.05	12.2	5.5	17.7	12.2
P0648.192NL	1.9	9.6	7.5	12.9	9.6
P0648.282NL	2.8	8.1	9.8	10.5	8.1
P0648.342NL	3.4	7.6	9.6	9.1	7.6
P0648.462NL	4.6	6.5	15.5	7.8	6.5
P0648.682NL	6.8	5.1	22	6.6	5.1
P0648.103NL	10.2	4.3	33	5.4	4.3
P0648.153NL	15.2	3.6	44	4.4	3.6
P0648.223NL	22	3.3	61	3.7	3.3
P0648.323NL	32	2.5	90	2.9	2.5
P0648.463NL	46	2.1	148	2.4	2.1
P0648.653NL	65	1.8	166	2.0	1.8
P0648.104NL	100	1.4	262	1.7	1.4
P0648.154NL	152	1.2	410	1.3	1.2
P0648.214NL	214	1.0	557	1.1	1.0
P0648.324NL	320	0.9	880	0.9	0.9
P0648.454NL	450	0.7	1230	0.8	0.7
P0648.644NL	645	0.6	1660	0.6	0.6
P0648.105NL	1030	0.5	2680	0.5	0.5

Notes:

- The temperature of the component (ambient plus temperature rise) must be within the specified operating temperature range.
- Inductance tested at 100kHz, 10mV_{RMS}
- Inductance drop = 10% typical at the Saturation Current
- ΔT = 40°C rise typical at the Heating Current
- The rated current is the lower of the saturation or heating current.
- Add suffix "T" to the part number for tape and reel packaging (i.e. P0648.102T)
- RoHS compliant parts are being introduced. Please contact Pulse for RoHS compliant part availability. If available, order by adding the suffix "NL" to the part number (i.e. P0648.102 becomes P0648.102NL and P0648.102T becomes P0648.102NLT).

USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

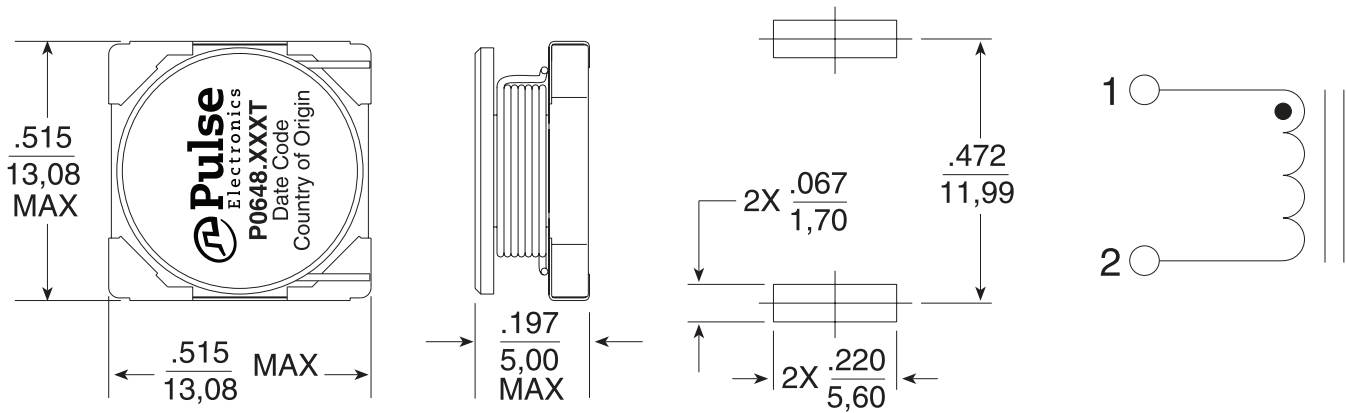
SMT Power Inductors

Unshielded Drum Core - P0648 Series

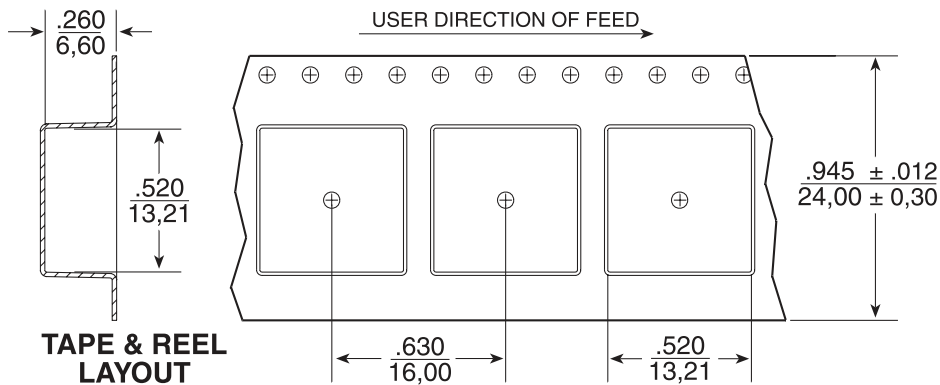
Mechanical

Schematic

P0648.XXX



SUGGESTED PAD LAYOUT



TAPE & REEL LAYOUT

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[P0648.682NLT](#)