

# Power Inductors for Critical Applications ST563PKP



- High energy storage and very low resistance
- High inductance values are perfect for EL driver applications.

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Terminations** Gold over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 0.92– 1.23 g

**Ambient temperature** –40°C to +85°C with Irms current, +85°C to +125°C with derated current

**Storage temperature** Component: –55°C to +125°C.  
Tape and reel packaging: –55°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging** 1000 per 13" reel Plastic tape: 24 mm wide, 0.33 mm thick, 12 mm pocket spacing, 5.8 mm pocket depth

Part number <sup>1</sup>	L <sup>2</sup> (µH)	Percent tol <sup>3</sup>	DCR max (Ohms)	SRF typ <sup>4</sup> (MHz)	Isat <sup>5</sup> (A)	Irms <sup>6</sup> (A)
ST563PKP102MLZ	1.0	20	0.009	100	9.0	6.8
ST563PKP152MLZ	1.5	20	0.010	90	8.0	6.4
ST563PKP222_LZ	2.2	20,10	0.012	80	7.0	6.1
ST563PKP332_LZ	3.3	20,10	0.015	65	6.4	5.4
ST563PKP472_LZ	4.7	20,10	0.018	45	5.4	4.8
ST563PKP682_LZ	6.8	20,10	0.026	38	4.6	4.4
ST563PKP103_LZ	10	20,10	0.038	30	3.8	3.9
ST563PKP153_LZ	15	20,10	0.046	27	3.0	3.1
ST563PKP223_LZ	22	20,10	0.085	19	2.3	2.7
ST563PKP333_LZ	33	20,10	0.10	15	2.0	2.1
ST563PKP473_LZ	47	20,10	0.14	12	1.6	1.8
ST563PKP683_LZ	68	20,10	0.20	10	1.4	1.5
ST563PKP104_LZ	100	20,10	0.28	9	1.2	1.3
ST563PKP154_LZ	150	20,10	0.40	6	1.0	1.0
ST563PKP224_LZ	220	20,10	0.61	5	0.80	0.80
ST563PKP334_LZ	330	20,10	1.02	4.5	0.60	0.60
ST563PKP474_LZ	470	20,10	1.27	3.5	0.50	0.50
ST563PKP684_LZ	680	20,10	2.02	2.5	0.40	0.40
ST563PKP105_LZ	1000	20,10	3.00	2.0	0.30	0.30
ST563PKP155_LZ	1500	20,10	4.49	1.7	0.29	0.27
ST563PKP335_LZ	3300	20,10	8.97	1.1	0.19	0.17

1. When ordering, specify **tolerance, termination and testing** codes:

ST563PKP105MLZ

**Tolerance:** M = 20%, K = 10%

**Termination:** L = Gold over nickel over phos bronze.  
Special order: T = Tin-silver-copper (95.5/4/0.5) or  
S = Tin-lead (63/37).

**Testing:** Z = Unscreened

H = Group A screening per Coilcraft CP-SA-10001

2. Tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
  3. Tolerances in bold are stocked for immediate shipment.
  4. SRF >13 MHz measured using Agilent/HP 8753D network analyzer; <13 MHz using Agilent/HP 4192A.
  5. DC current at 25°C that causes a 10% (typ) inductance drop from its value without current.
  6. Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
  7. Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**Coilcraft** CPS  
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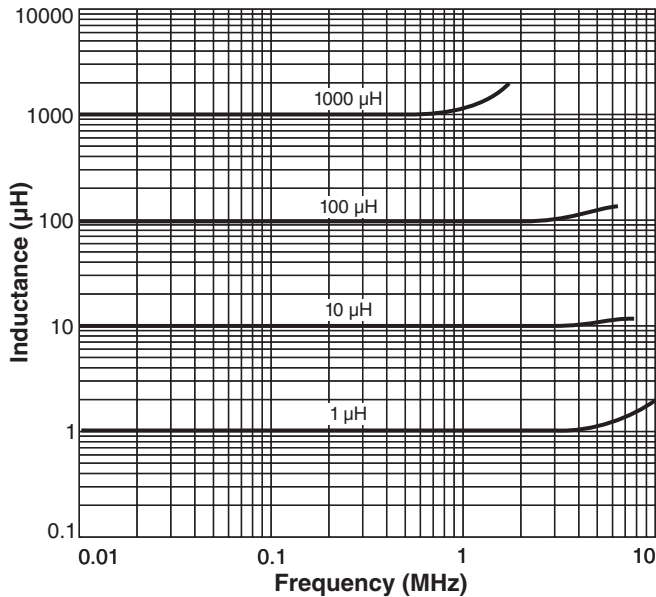
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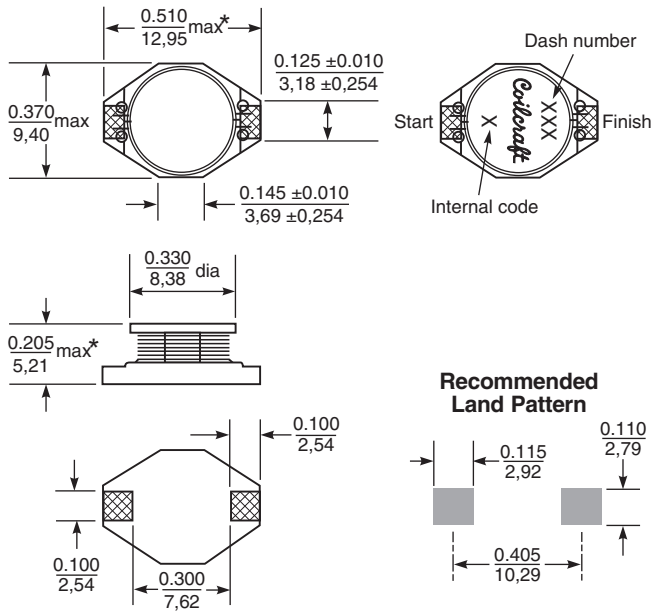
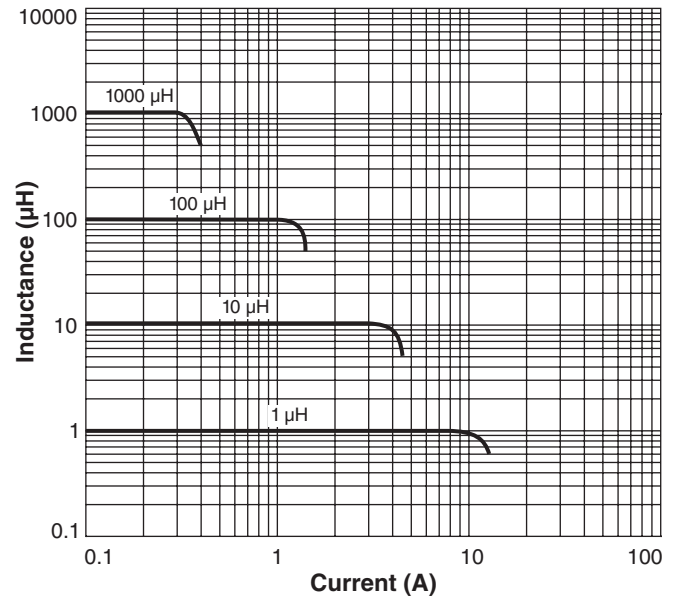
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# Power Inductors for Critical Applications ST563PKP

## Typical L vs Frequency



## Typical L vs Current



\* Allow an additional 0.01/0,254 in length and 0.005/0,127 in height for optional tin-lead and tin-silver-copper application.

Dimensions are in inches/mm

