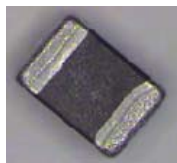




Multi-Layer Power Inductors IP Series



■ Feature

1. Small and light weight
2. Low DC resistance

■ Application

DC/DC converter for the Mobile equipment; Mobile Phone, DSC, WLAN

■ Ordering Code

IP 2012 1R0 M P S 9

PRODUCT CODE

IP : Multilayer Power Inductor (Lead Free)

DIMENSION (L X W)

Code	Dimension	EIA
1608	1.6 x 0.80 mm	0603
2012	2.0 X 1.25 mm	0805
2016	2.0 X 1.6 mm	0806
2520	2.5 X 2.0 mm	1008

INDUCTANCE CODE

Code	R47	1R0	1R5	2R2	3R3	4R7
Inductance (uH)	0.47	1.0	1.5	2.2	3.3	4.7

TOLERANCE CODE

M: ±20%

PACKAGING CODE

T: Paper tape reel
P: Embossed reel

SPECIFICATION CODE

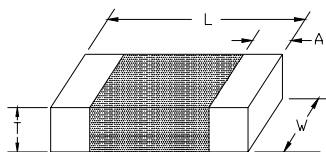
S: Standard
L: Light loading current

THICKNESS CODE

Code	5	7	8	9	B
Thickness (mm)	0.5	0.7	0.8	0.9	1.2



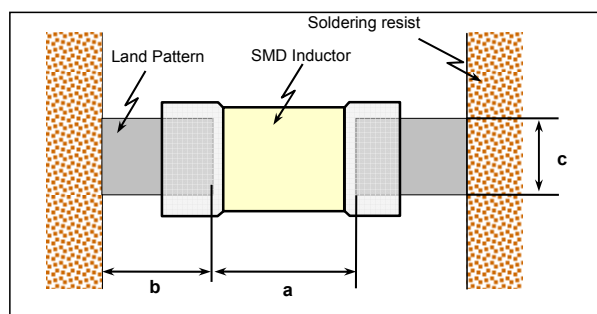
Standard External Dimensions



Unit: mm/(inch)

Series	L	W	T	A (Min/Max)	Packing Quantity (pcs/reel)	
					Paper Tape	Embossed Tape
IP2012 (0805)	2.0±0.2 (0.079±0.008)	1.25±0.2 (0.049±0.008)	0.55 max (0.021max)	0.20/0.80 (0.008/0.032)	4,000	----
IP2012 (0805)	2.0±0.2 (0.079±0.008)	1.25±0.2 (0.049±0.008)	1.0 max (0.039max)	0.20/0.80 (0.008/0.032)	----	3,000
IP2016 (0806)	2.0±0.2 (0.079±0.008)	1.6±0.2 (0.063±0.008)	1.0 max (0.039max)	0.20/0.80 (0.008/0.032)	----	3,000
IP2520 (1008)	2.5±0.2 (0.098±0.008)	2.0±0.2 (0.079±0.008)	1.0 max (0.039max)	0.20/0.80 (0.008/0.032)	----	3,000

Recommended Pad Dimensions



Size mm (EIA)	L x W (mm)	a (mm)	b (mm)	c (mm)
2012 (0805)	2.0 x 1.25	0.8 to 1.2	0.8 to 1.2	0.9 to 1.6
2016 (0806)	2.0 x 1.6	0.8 to 1.2	0.8 to 1.2	0.9 to 1.6
2520 (1008)	2.5 x 2.0	1.0 to 1.4	0.6 to 1.0	1.8 to 2.2

Unit: mm/(inch)



Part Numbers & Characteristic IP Series

● IP2012 (EIA 0805)

Ordering Code	Inductance [uH]	Inductance Tolerance	Measuring frequency [MHz]	DC Resistance [Ω]	Rated Current [A] (max.)	Saturation Current [A] (max.)	Thickness [mm] (max.)
IP2012R47MTS5	0.47	±20%	1	0.12±25%	1.10	0.90	0.55
IP20121R0MTS5	1.00			0.19±25%	0.90	0.70	
IP20122R2MTS5	2.20			0.34±25%	0.60	0.35	
IP2012R47MPS9	0.47	±20%	1	0.09±25%	1.20	1.20	1.0
IP20121R0MPS9	1.00			0.11±25%	1.00	1.10	
IP20121R5MPS9	1.50			0.13±25%	0.95	0.90	
IP20122R2MPS9	2.20			0.17±25%	0.95	0.55	
IP20123R3MPS9	3.30			0.19±25%	0.80	0.30	
IP20124R7MPS9	4.70			0.23±25%	0.80	0.15	
IP20124R7MPL9	4.70	±20%	1	0.25±25%	0.80	--	1.0

● IP2016 (EIA 0806)

Ordering Code	Inductance [uH]	Inductance Tolerance	Measuring frequency [MHz]	DC Resistance [Ω]	Rated Current [A] (max.)	Saturation Current [A] (max.)	Thickness [mm] (max.)
IP2016R47MPS9	0.47	±20%	1	0.07±25%	1.60	1.20	1.0
IP20161R0MPS9	1.00			0.11±25%	1.30	1.00	
IP20161R5MPS9	1.50			0.12±25%	1.20	0.80	
IP20162R2MPS9	2.20			0.13±25%	1.20	0.55	
IP20163R3MPS9	3.30			0.15±25%	1.10	0.30	
IP20164R7MPS9	4.70			0.18±25%	0.90	0.15	

● IP2520 (EIA 1008)

Ordering Code	Inductance [uH]	Inductance Tolerance	Measuring frequency [MHz]	DC Resistance [Ω]	Rated Current [A] (max.)	Thickness [mm] (max.)
IP25201R0MPS9	1.00	±20%	1	0.06±25%	1.60	1.0
IP25202R2MPS9	2.20	±20%	1	0.09±25%	1.30	
IP25204R7MPS9	4.70	±20%	1	0.13±25%	1.10	

※Rated current specifies that self-heat generation is below 40℃ during DC loaded (at 20℃)

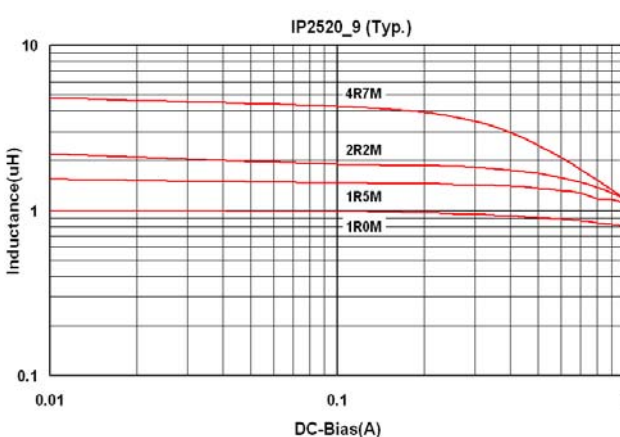
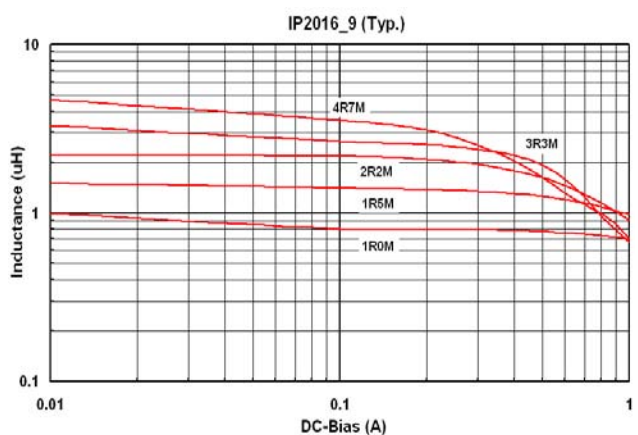
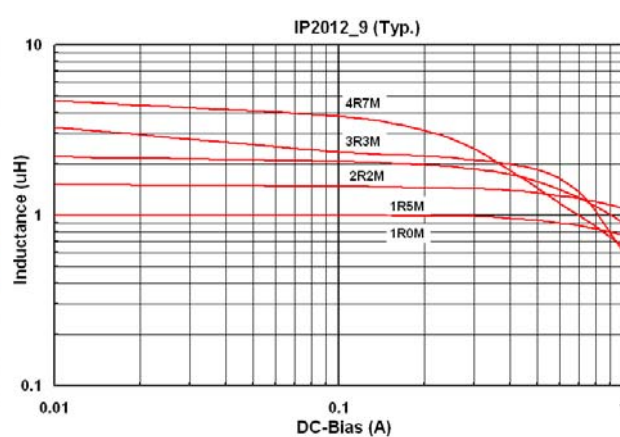
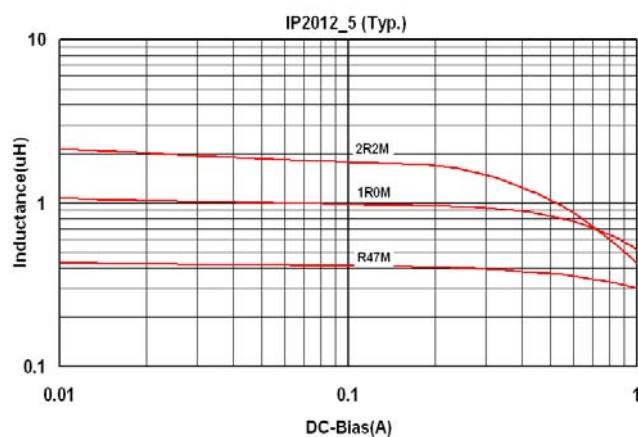
※Saturated current specifies that inductance drop is below 30% during DC loaded (at 20℃)

※Operating temperature range from -55℃ to 125℃.



Electric Properties

DC Bias characteristics



Inductance vs Frequency

