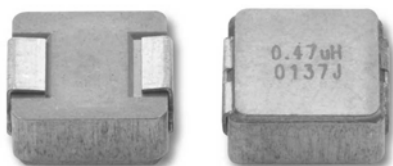


## Low Profile, High Current IHLP® Inductors



Manufactured under one or more of the following:  
**US Patents; 6,198,375/6,204,744/6,449,829/6,460,244.**  
 Several foreign patents, and other patents pending.

### STANDARD ELECTRICAL SPECIFICATIONS

$L_0$ INDUCTANCE $\pm 20\%$ AT 100 kHz, 0.25 V, 0 A ( $\mu$ H)	DCR TYP. 25 °C (m $\Omega$ )	DCR MAX. 25 °C (m $\Omega$ )	HEAT RATING CURRENT DC TYP. (A) <sup>(3)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(4)</sup>	SRF TYP. (MHz)
0.10	2.6	2.9	21.00	25.00	333
0.22	3.5	3.9	21.00	14.50	146
0.33	4.5	5.0	16.50	9.00	112
0.47	5.4	6.0	14.00	9.00	83
1.0	10.0	11.0	10.00	6.50	66
1.5	17.1	18.5	7.50	7.00	39
2.2	22.5	25.0	6.75	5.50	41
3.3	36.4	40.4	5.50	7.00	29
4.7	54.0	60.0	4.50	5.20	27
5.6	63.0	70.6	4.25	3.50	23
10.0	122.1	131.9	2.75	2.25	17
22.0	260.0	270.0	1.90	1.70	10

#### Notes

- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range -55 °C to +125 °C
- (3) DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- (4) DC current (A) that will cause  $L_0$  to drop approximately 20 %
- (5) The part temperature (ambient + temp. rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### FEATURES

- Shielded construction
- Lowest DCR/ $\mu$ H, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Excellent temperature stability for inductance and saturation
- Excellent DC/DC energy storage up to 1 MHz to 2 MHz. Filter inductor applications up to SRF (see "Standard Electrical Specifications" table)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

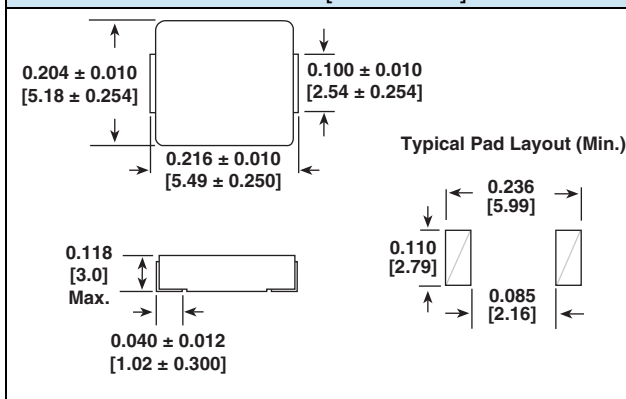


**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

### APPLICATIONS

- PDA/notebook/desktop/server applications
- High current POL converters
- Low profile, high current power supplies
- Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array (FPGA)

### DIMENSIONS in inches [millimeters]



### DESCRIPTION

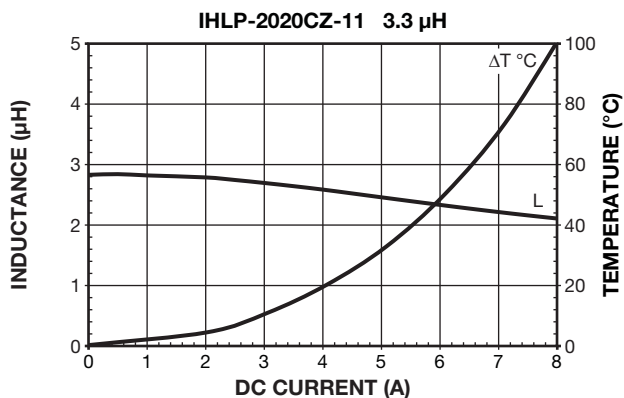
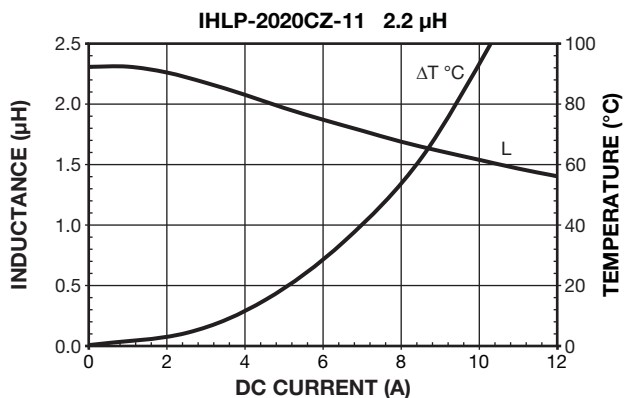
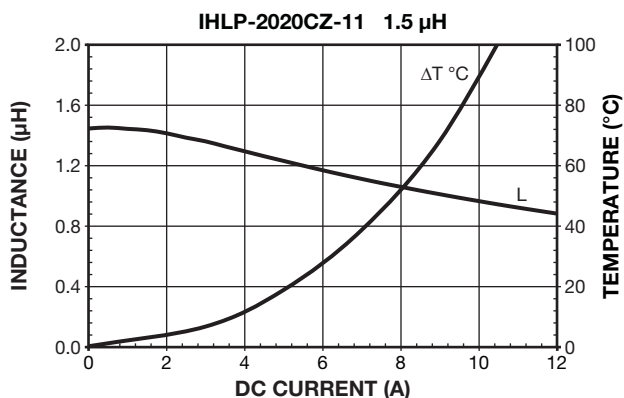
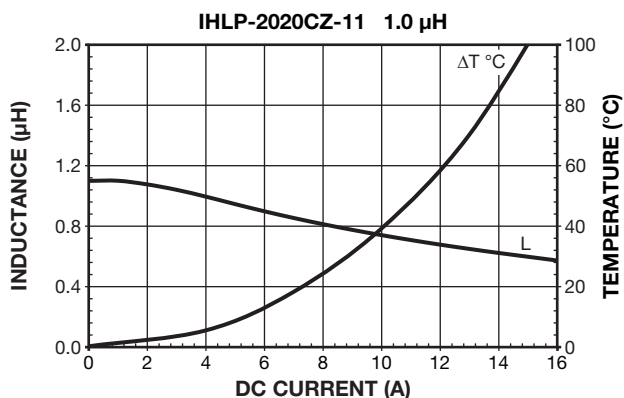
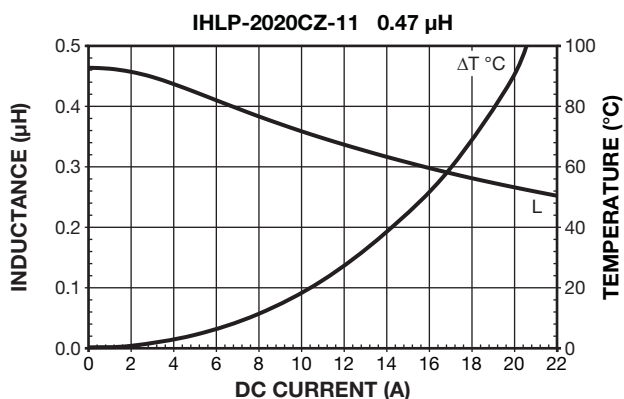
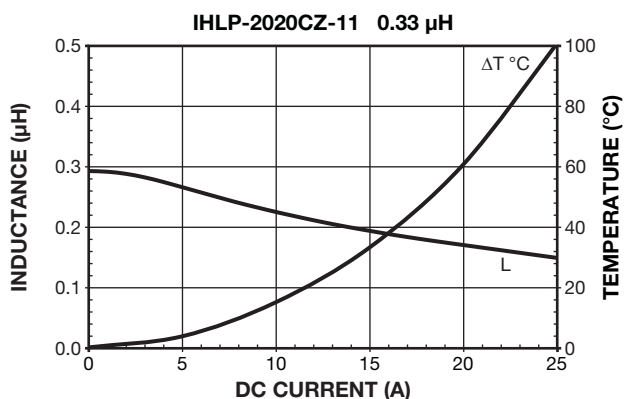
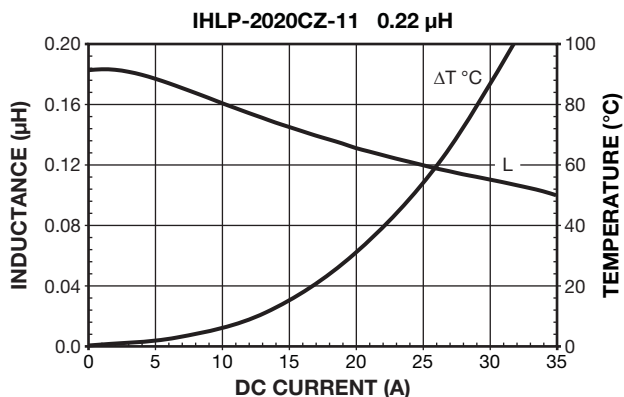
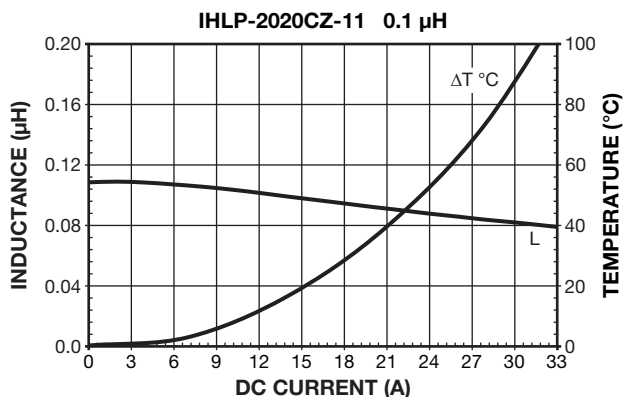
<b>IHLP-2020CZ-11</b>	<b>4.7 <math>\mu</math>H</b>	<b><math>\pm 20\%</math></b>	<b>ER</b>	<b>e3</b>
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

### GLOBAL PART NUMBER

I	H	L	P	2	0	2	0	C	Z	E	R	4	R	7	M	1	1
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES	

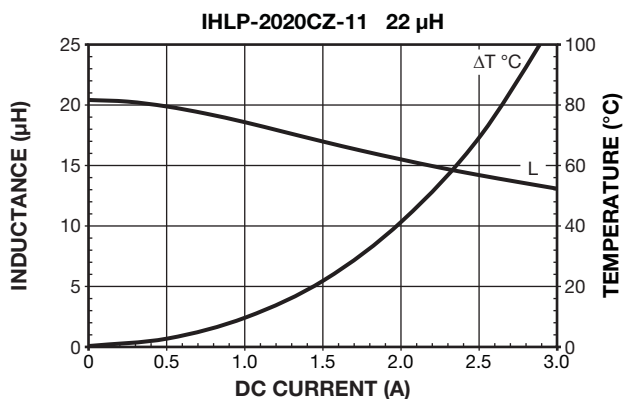
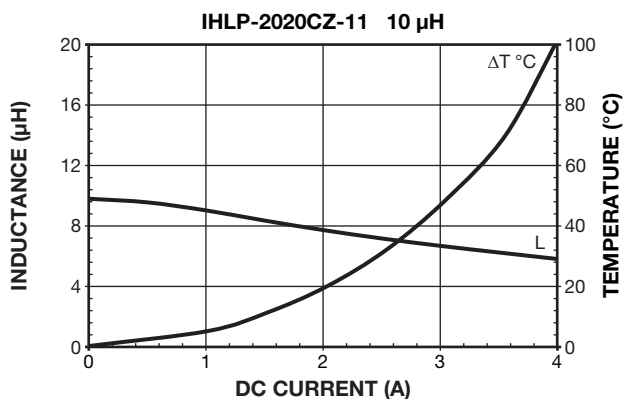
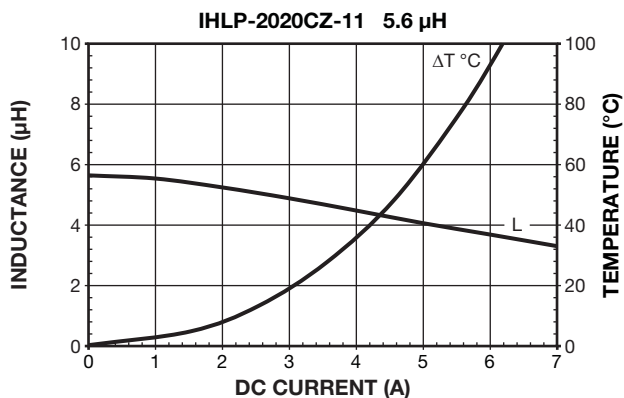
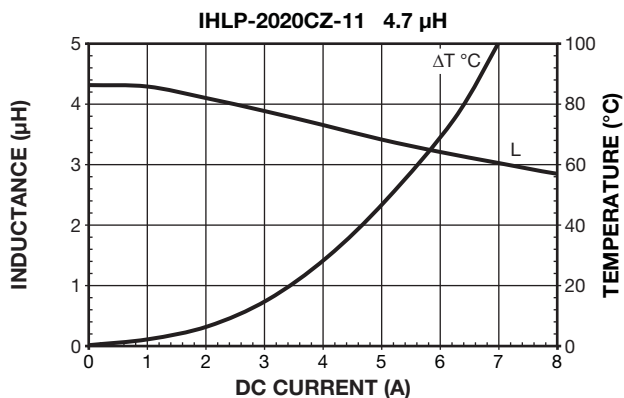


PERFORMANCE GRAPHS



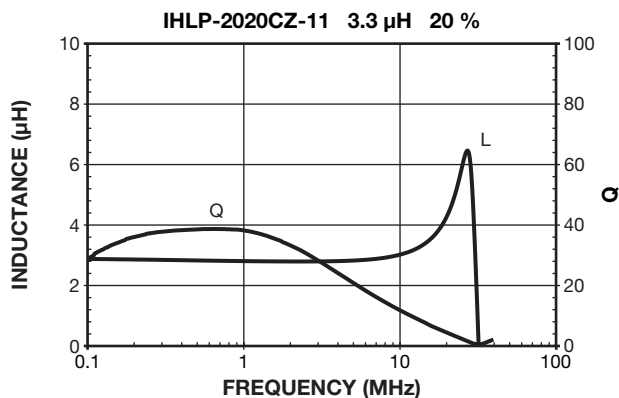
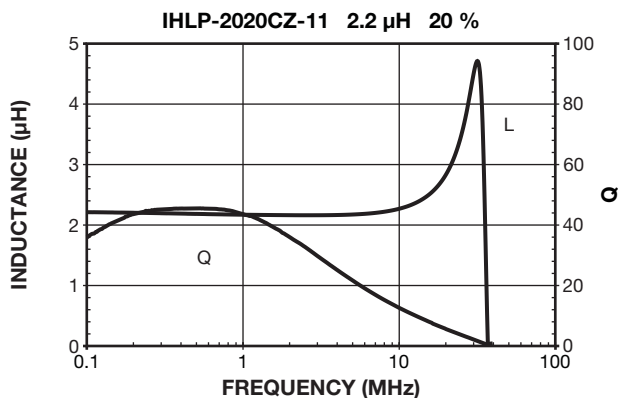
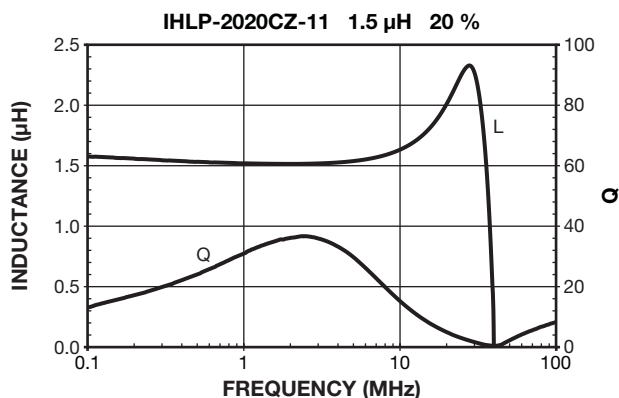
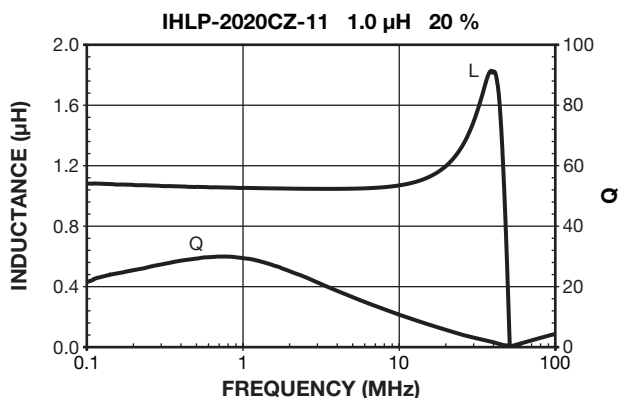
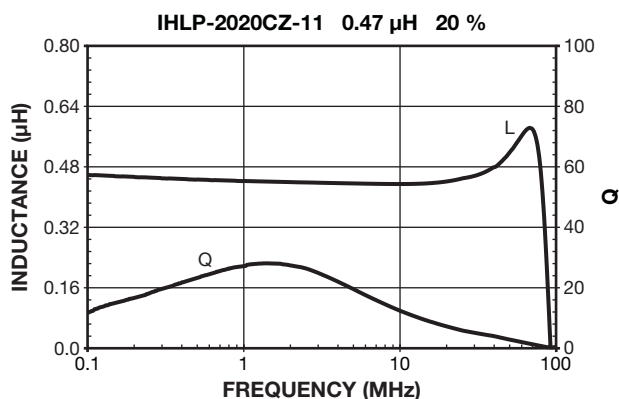
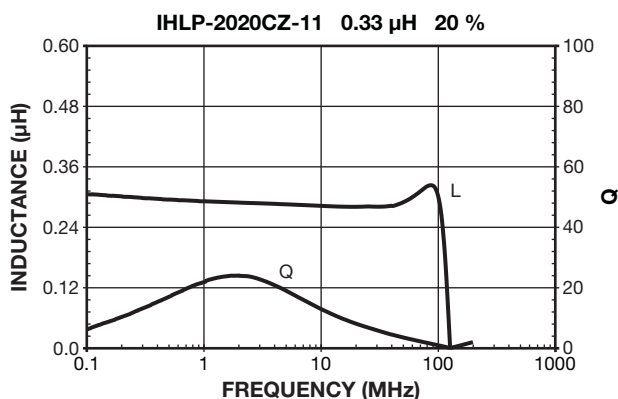
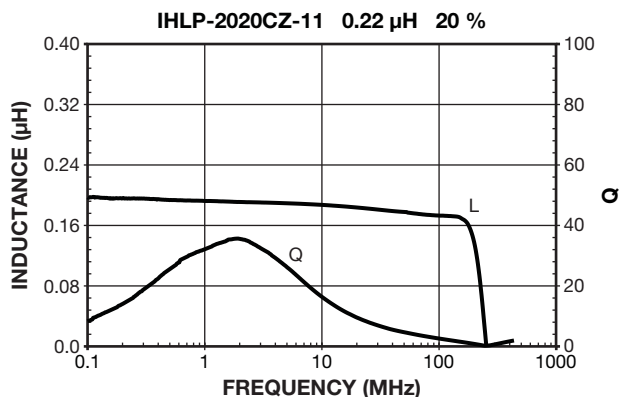
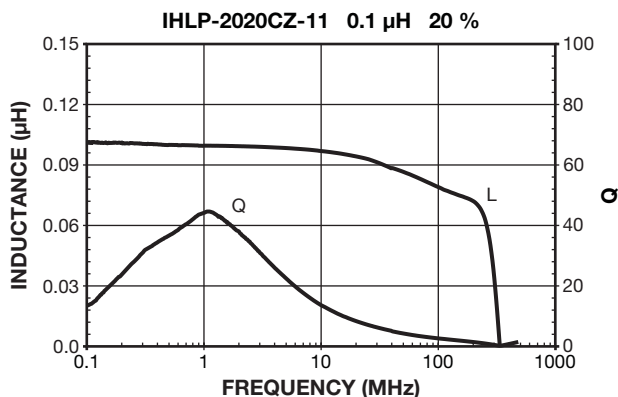


PERFORMANCE GRAPHS



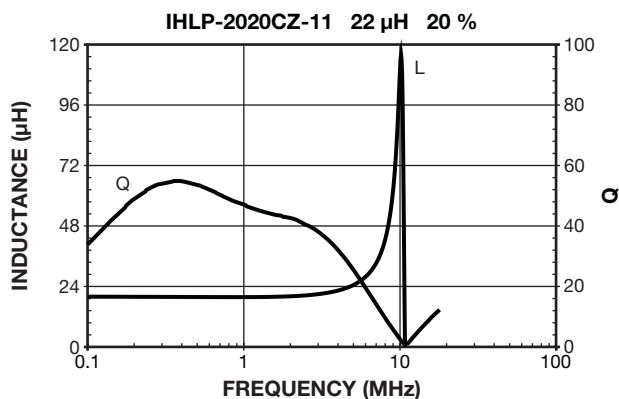
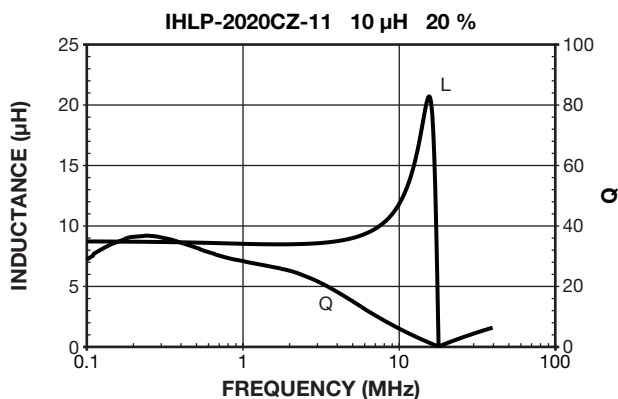
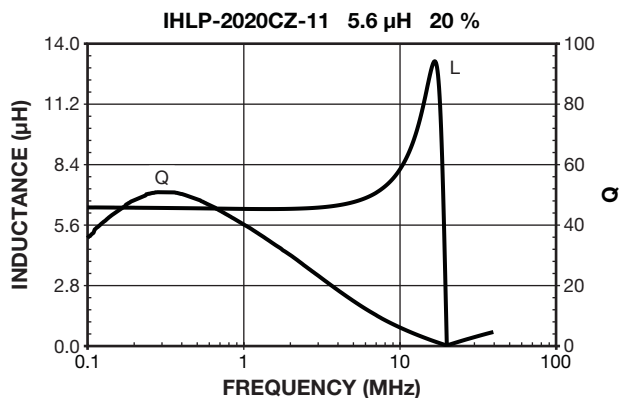
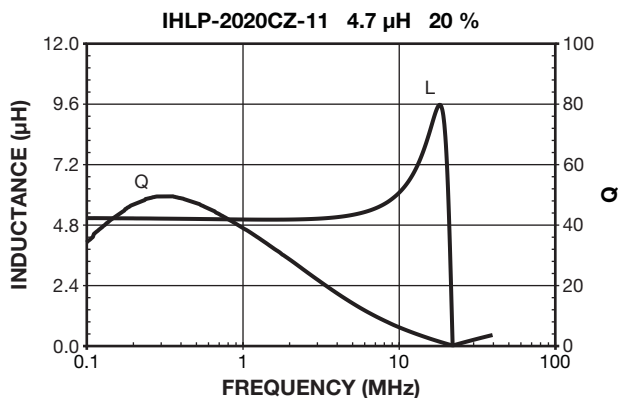


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

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Minhang District, Shanghai , China

➤ Sales :

Direct     +86 (21) 6401-6692  
  
Email       amall@ameya360.com  
  
QQ         800077892  
  
Skype      ameyasales1 ameyasales2

➤ Customer Service :

Email       service@ameya360.com

➤ Partnership :

Tel         +86 (21) 64016692-8333  
  
Email      mkt@ameya360.com