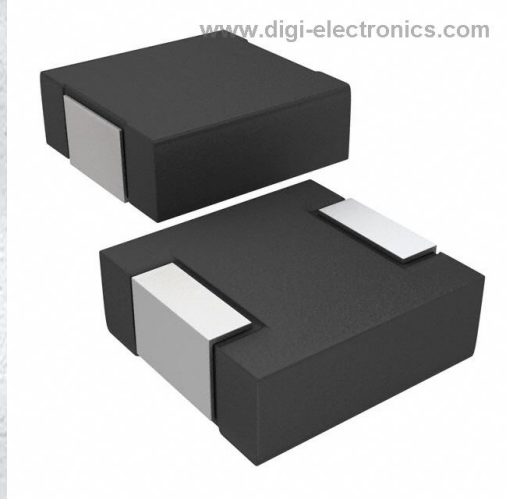
IHLP2020CZERR68M5A Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	IHLP2020CZERR68M5A-DG
Manufacturer	Vishay Dale
Manufacturer Product Number	IHLP2020CZERR68M5A
Description	FIXED IND 680NH 11.3A 9.74 MOHM
Detailed Description	680 nH Shielded Molded Inductor 11.3 A 9.74mOhm Max Nonstandard

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
IHLP2020CZERR68M5A	Vishay Dale
Series:	Product Status:
IHLP-2020CZ-5A	Active
Type:	Material - Core:
Molded	-
Inductance:	Tolerance:
680 nH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
11.3 A	8.2A
Shielding:	DC Resistance (DCR):
Shielded	9.74mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	77.7MHz
Ratings:	Operating Temperature:
AEC-Q200	-55°C ~ 155°C
Inductance Frequency - Test:	Features:
100 kHz	-
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
-	0.204" L x 0.204" W (5.18mm x 5.18mm)
Height - Seated (Max):	
0.118" (3.00mm)	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8504.50.8000	

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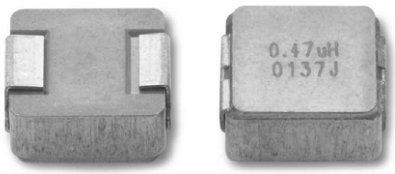
IHLP-2020CZ-5A

Vishay Dale

IHLP® Automotive Inductors, High Temperature (155 °C) Series



LINKS TO ADDITIONAL RESOURCES

Design Tools

FEATURES

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

- High temperature, up to 155 °C
- Shielded construction
- Excellent DC/DC energy storage up to 1 MHz to 2 Mhz. Filter inductor applications up the SRF (see Standard Electrical Specifications table).
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- AEC-Q200 qualified
- IHLP design; PATENT(S): www.vishay.com/patents
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

APPLICATIONS

- Engine and transmission control units
- Diesel injection drivers
- DC/DC converter for entertainment / navigation systems
- Noise suppression for motors: windshield wipers / power seats / power mirrors / heating and ventilation blower / HID lighting
- LED drivers

STANDARD ELECTRICAL SPECIFICATIONS

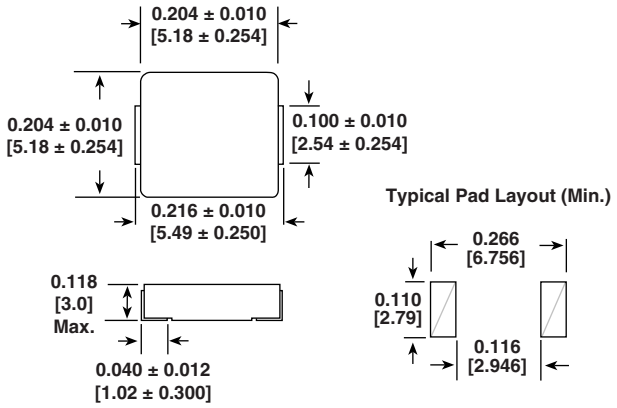
L_0 INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (µH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (1)	SATURATION CURRENT DC TYP. (A) (2)	SRF TYP. (MHz)
0.22	3.95	4.23	18	11	190
0.33	4.9	5.34	16	9.8	117
0.47	6.58	7.04	14.2	7.8	92
0.68	9.1	9.74	11.3	8.2	77.7
1	11.5	12.1	10.8	8	60.7
1.5	18	19.8	7.9	7.1	49.2
2.2	24.7	26	6.6	6.3	39.8
3.3	44.0	47.0	5.3	5.5	33.4
4.7	72.8	78.3	4.1	3.7	23.8
6.8	104	111	3.2	2.2	18.8
10	132	138	2.8	1.6	15.9
15	195	208	2.4	1.6	14.1

Notes

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +155 °C
- The part temperature (ambient + temp. rise) should not exceed 155 °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
- Rated operating voltage (across inductor) = 50 V

(1) DC current (A) that will cause an approximate ΔT of 40 °C
(2) DC current (A) that will cause L_0 to drop approximately 20 %

DIMENSIONS in inches [millimeters]



DESCRIPTION

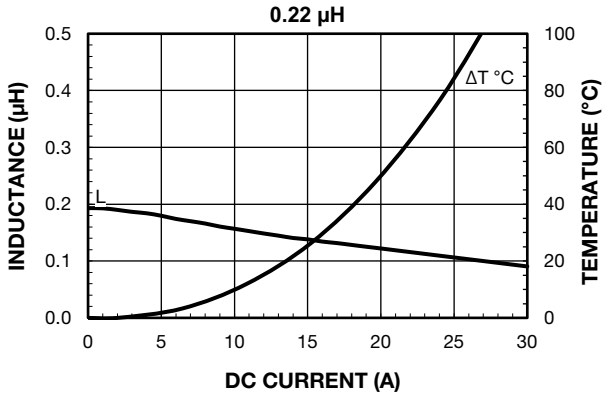
IHLP-2020CZ-5A	1.5 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

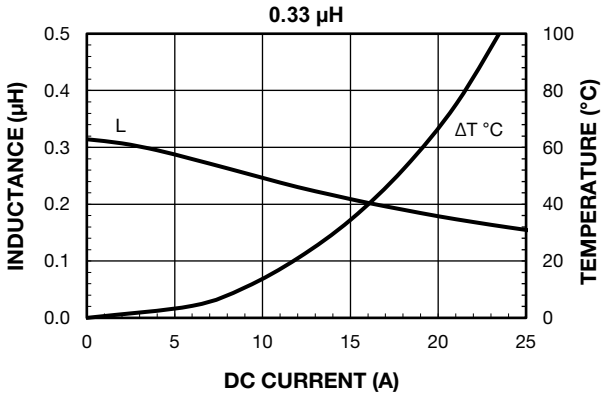
GLOBAL PART NUMBER

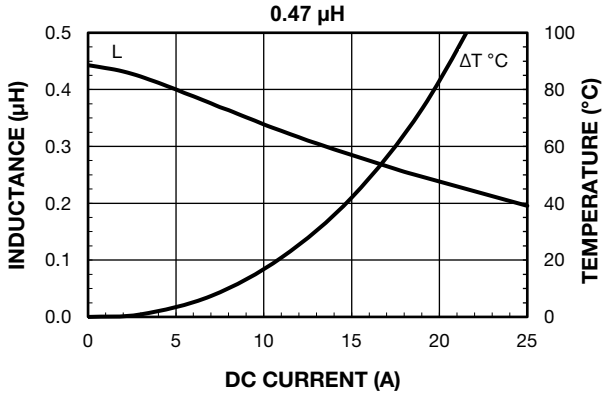
I	H	L	P	2	0	2	0	C	Z	E	R	1	R	5	M	5	A
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES	

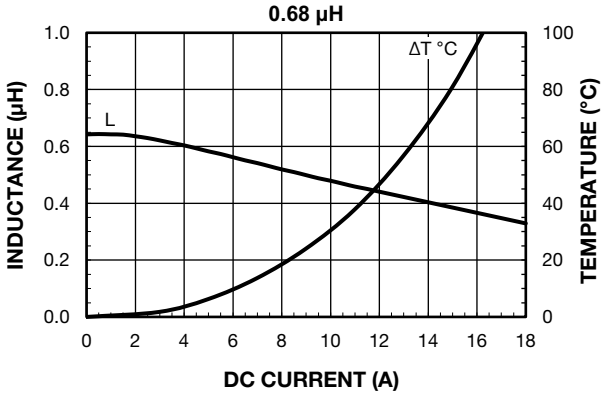
PATENT(S): www.vishay.com/patents
This Vishay product is protected by one or more United States and international patents.

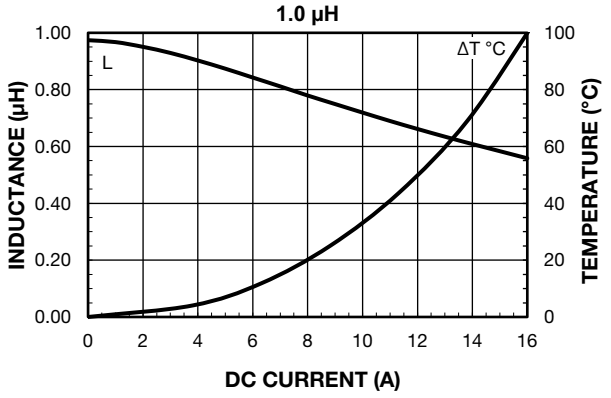
PERFORMANCE GRAPHS

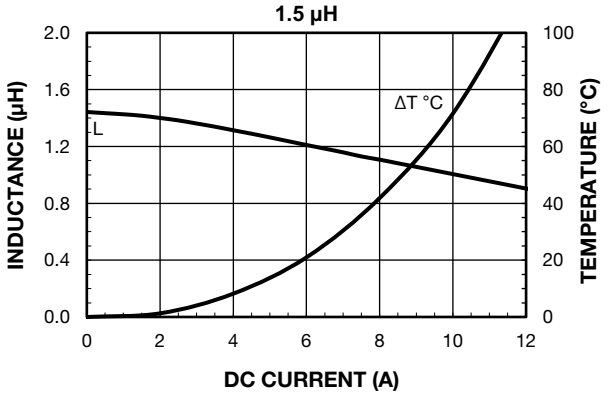




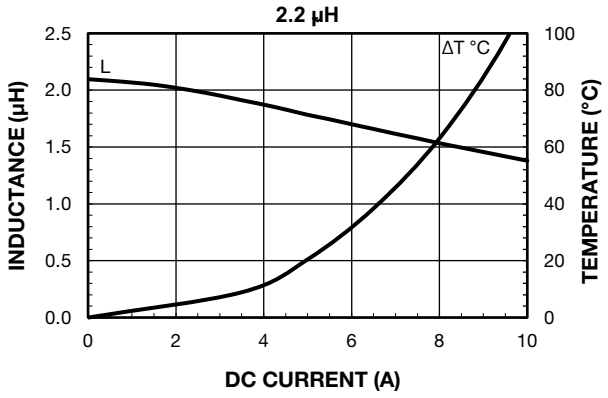


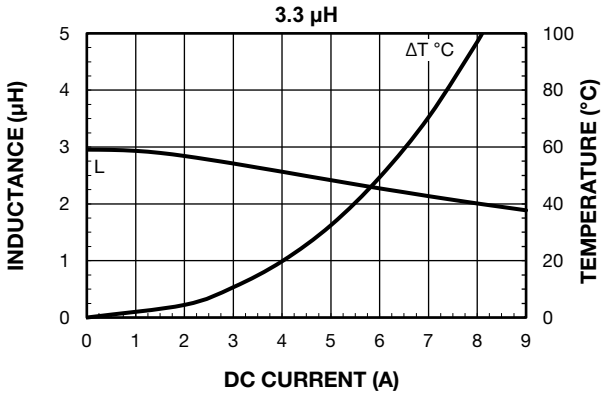


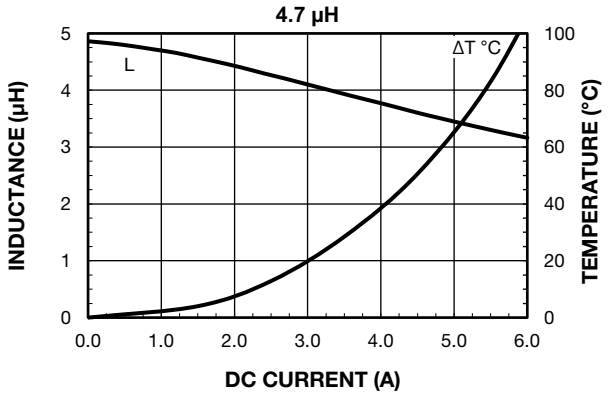


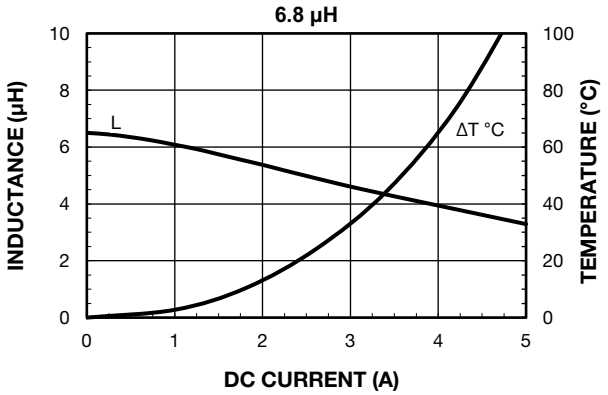


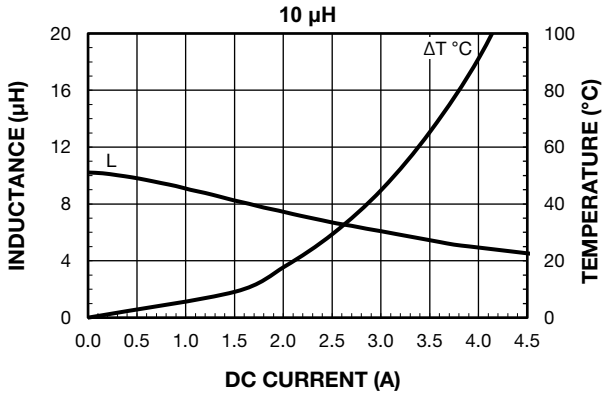
PERFORMANCE GRAPHS

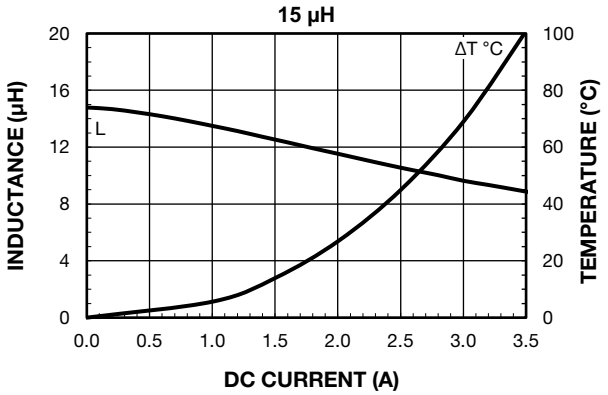




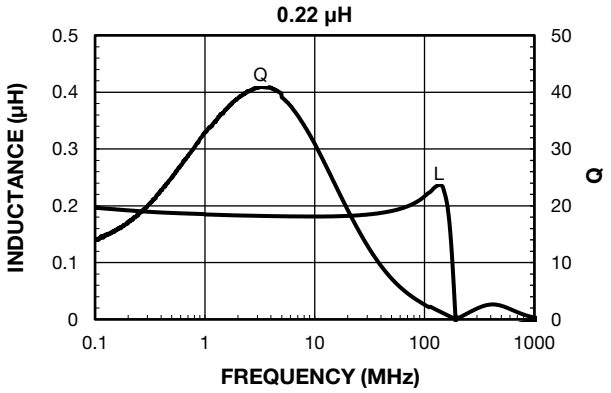


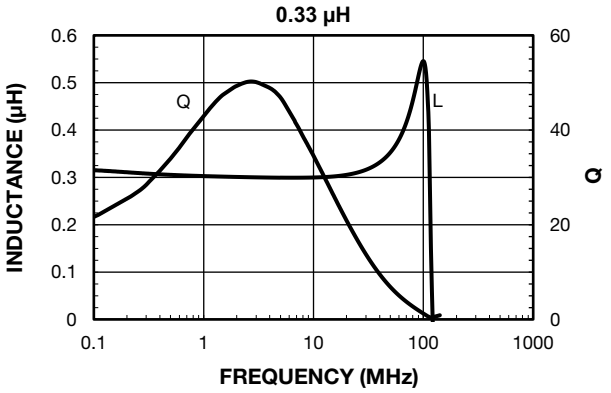


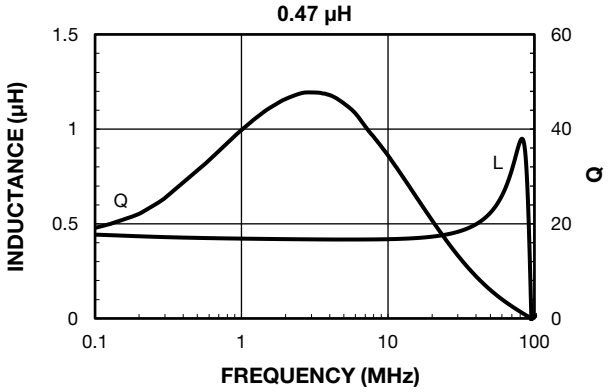


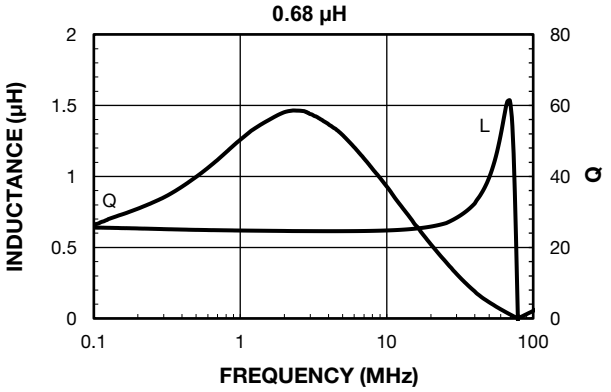


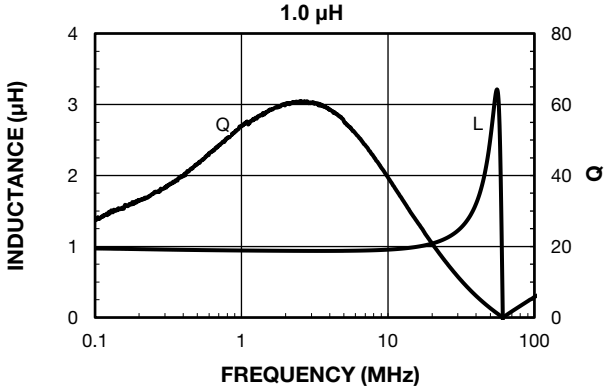
PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY

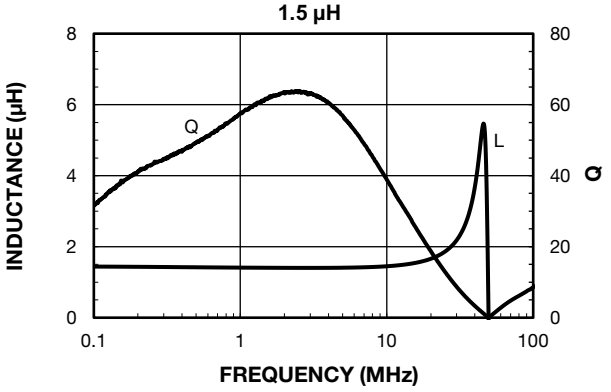












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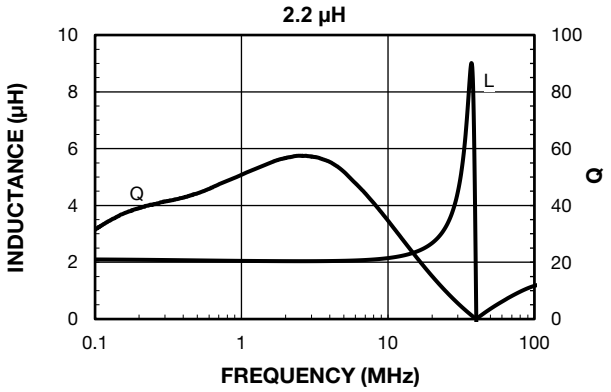

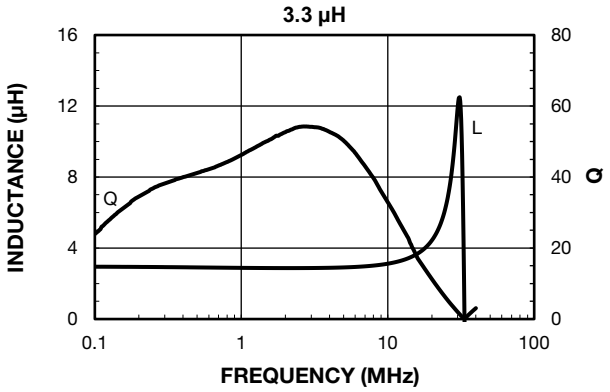

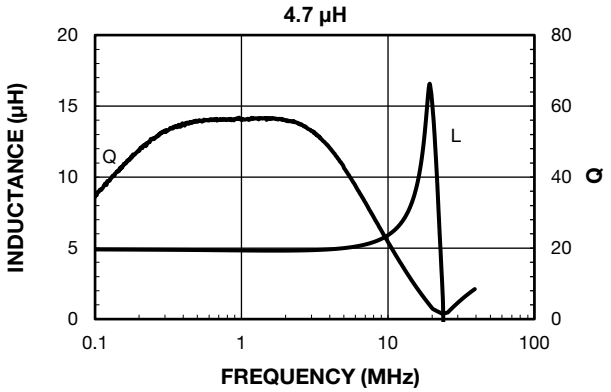

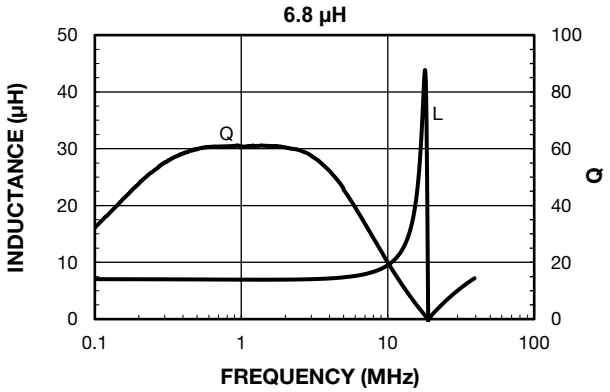

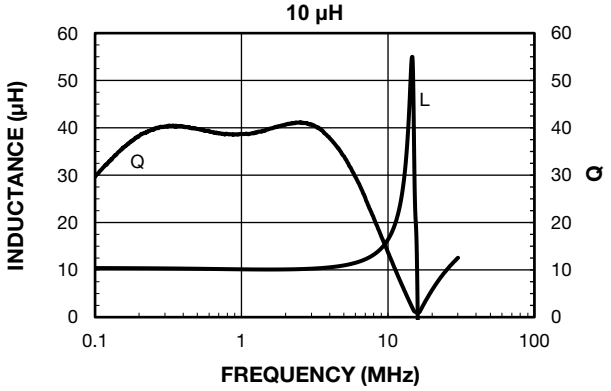

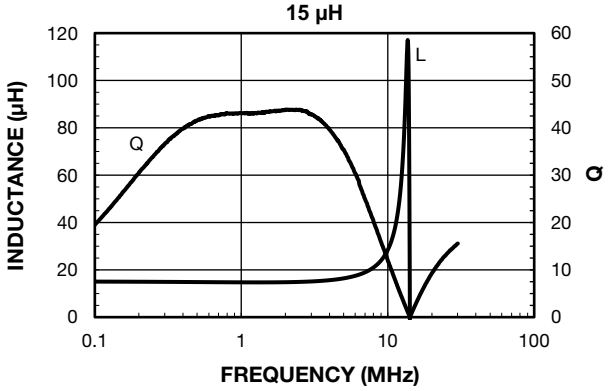

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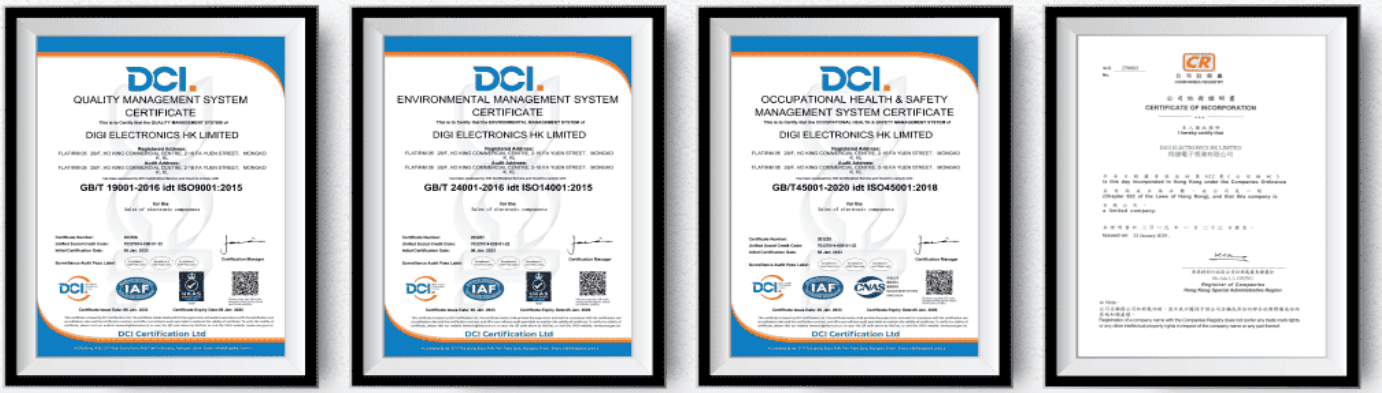

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