

Shielded, SMD, Ferrite Power Inductors



FEATURES

- 5.0 mm x 5.0 mm x 4.0 mm max. SMD package
- Magnetically shielded construction due to iron-embedded epoxy encapsulation over wirewound ferrite core
- Inductance range: 0.22 μ H to 10 μ H
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

LINKS TO ADDITIONAL RESOURCES


[Product Page](#)

APPLICATIONS

- DC/DC power supplies
- Noise suppression and filtering
- Portable and hand held devices
- Computer, industrial, consumer electronics

STANDARD ELECTRICAL SPECIFICATIONS

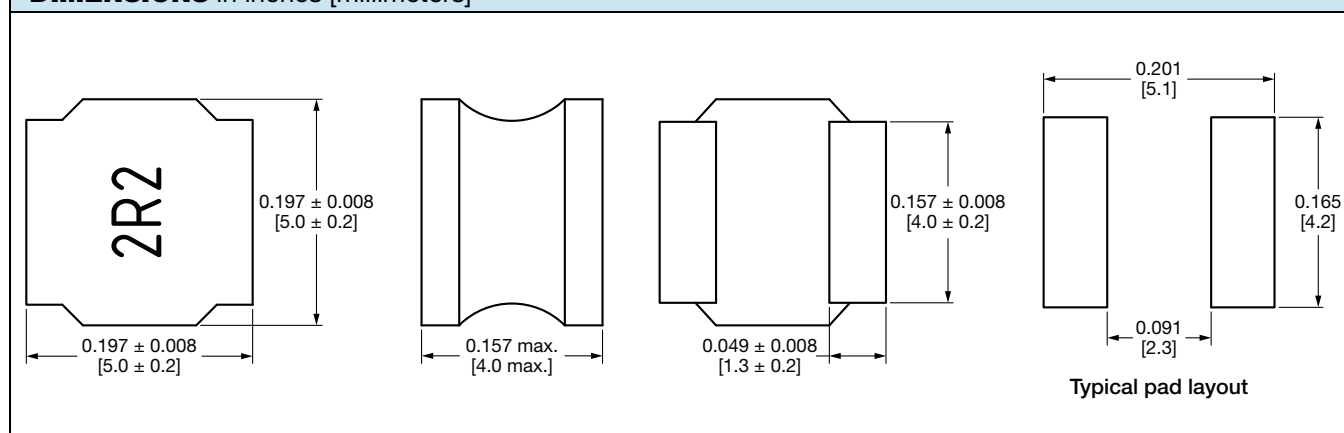
PART NUMBER	L ₀ INDUCTANCE (μ H)	INDUCTANCE TOLERANCE (%)	DCR TYP. (m Ω)	DCR MAX. (m Ω)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾	SATURATION CURRENT DC TYP. (A) ⁽²⁾	SRF MIN. (MHz)
IFSC2020DZERR22M01	0.22	20.0	6	8	7.50	20	289
IFSC2020DZERR24N01	0.24	30.0	6	8	7.40	18	251
IFSC2020DZERR47M01	0.47	20.0	7	9	7.60	11.5	171
IFSC2020DZER1R0N01	1.0	30.0	12	16	5.10	8.2	117
IFSC2020DZER1R2N01	1.2	30.0	16	21	4.30	7.1	110
IFSC2020DZER1R5N01	1.5	30.0	15	21	4.80	7.3	86
IFSC2020DZER1R8M01	1.8	20.0	16	21	4.30	6.4	55
IFSC2020DZER2R2N01	2.2	30.0	19	25	4.30	5.6	50
IFSC2020DZER2R7N01	2.7	30.0	22	29	4.10	5.1	37
IFSC2020DZER3R0N01	3.0	30.0	22	29	4.20	4.8	37
IFSC2020DZER3R3N01	3.3	30.0	24	31	3.90	4.6	32
IFSC2020DZER3R6M01	3.6	20.0	26	31	3.70	4.4	30
IFSC2020DZER3R9N01	3.9	30.0	27	35	3.70	4.2	29
IFSC2020DZER4R7N01	4.7	30.0	30	39	3.30	3.9	28
IFSC2020DZER5R6M01	5.6	20.0	35	46	3.10	4.1	27
IFSC2020DZER6R8M01	6.8	20.0	43	56	2.80	3.5	21
IFSC2020DZER8R2M01	8.2	20.0	48	62	2.60	3	20
IFSC2020DZER100M01	10	20.0	64	83	2.40	2.9	18
IFSC2020DZER120M01	12	20.0	77	100	2.10	2.5	14
IFSC2020DZER150M01	15	20.0	86	112	2.10	2.3	13
IFSC2020DZER180M01	18	20.0	119	155	1.65	2	12
IFSC2020DZER220M01	22	20.0	129	168	1.60	1.9	11
IFSC2020DZER270M01	27	20.0	188	244	1.25	1.75	9.8
IFSC2020DZER330M01	33	20.0	188	244	1.40	1.5	9
IFSC2020DZER470M01	47	20.0	272	354	1.10	1.3	7
IFSC2020DZER510M01	51	20.0	380	494	1.10	1.2	6
IFSC2020DZER560M01	56	20.0	380	494	0.90	1.2	6
IFSC2020DZER680M01	68	20.0	400	520	0.90	1.1	6

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L ₀ INDUCTANCE (μH)	INDUCTANCE TOLERANCE (%)	DCR TYP. (mΩ)	DCR MAX. (mΩ)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾	SATURATION CURRENT DC TYP. (A) ⁽²⁾	SRF MIN. (MHz)
IFSC2020DZER750M01	75	20.0	450	585	0.80	0.95	6
IFSC2020DZER101M01	100	20.0	560	728	0.80	0.9	5
IFSC2020DZER151M01	150	20.0	750	975	0.70	0.67	3.7
IFSC2020DZER221M01	220	20.0	1400	1820	0.50	0.55	3
IFSC2020DZER301M01	300	20.0	2000	2600	0.40	0.58	2.7
IFSC2020DZER331M01	330	20.0	2100	2730	0.50	0.47	2.7
IFSC2020DZER471M01	470	20.0	3000	3900	0.40	0.43	2.7
IFSC2020DZER561M01	560	20.0	3780	4920	0.35	0.36	1.5
IFSC2020DZER681M01	680	20.0	3900	5070	0.30	0.35	1.6

Notes

- All test data is referenced to 25 °C ambient
- Test condition: 100 kHz, 1 V
- Operating temperature range -40 °C to +125 °C
- (1) DC current (A) that will cause an approximate ΔT of 40 °C
- (2) DC current (A) that will cause L₀ to drop approximately 30 %

DIMENSIONS in inches [millimeters]

DESCRIPTION

IFSC2020DZ-01	2.2 μH	± 30 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I F S C	2 0 2 0 D Z	E R	2 R 2	N	0 1
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		ER = tape and reel	2R2 = 2.2 μH	M = ± 20 % N = ± 30 %	



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.