Semi-Shielded, Low Profile, SMD Power Inductors



FEATURES

- 2.5 mm x 2.0 mm x 1.0 mm max. SMD package
- Semi-shielded, metal based construction for stable saturation
- Low profile inductors from 0.24 µH to 4.7 µH
- Unique low core loss and high saturation performance
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

LINKS TO ADDITIONAL RESOURCES

Product Page

APPLICATIONS

- DC/DC power supplies in smartphones, virtual reality headsets
- Noise suppression and filtering
- Portable and hand held devices
- HDD and SSD storage

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L_0 INDUCTANCE (µH)	INDUCTANCE TOLERANCE (%)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. I_{DC} (A) (1)	SATURATION CURRENT DC TYP. I_{SAT} (A) (2)	SRF MIN. (MHz)
IMSC1008AZERR24M	0.24	20	15	18	5.65	9.9	148
IMSC1008AZERR33M	0.33	20	18	22	5.15	9	115
IMSC1008AZERR47M	0.47	20	25	30	4.4	7.2	100
IMSC1008AZER1R0M	1	20	42	50	3.7	4.8	54
IMSC1008AZER1R5M	1.5	20	60	68	2.9	3.95	39
IMSC1008AZER2R2M	2.2	20	83	93	2.45	2.95	32
IMSC1008AZER3R3M	3.3	20	110	130	2.1	2.2	27
IMSC1008AZER4R7M	4.7	20	160	180	1.75	1.8	23

Notes

- All test data is referenced to 25 °C ambient
- Test condition: 1 MHz, 1 V
- Operating temperature range -40 °C to +125 °C

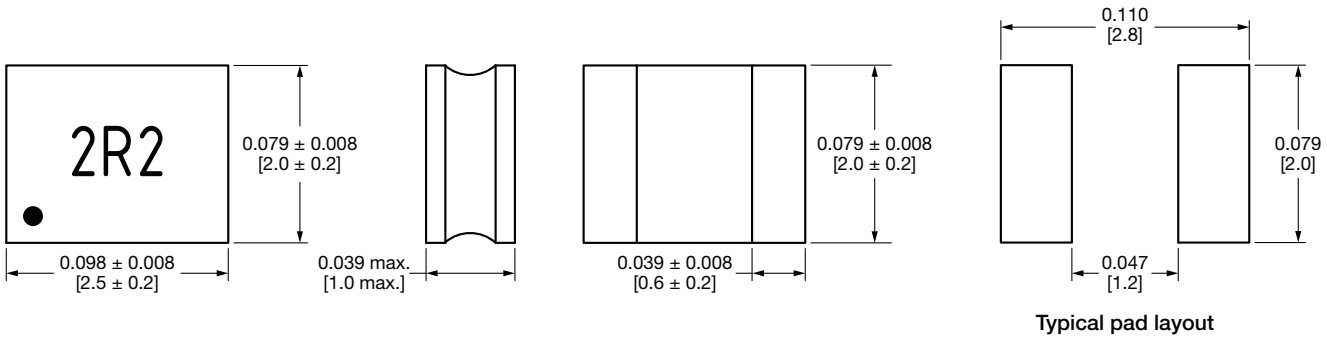
(1) DC current (A) that will cause an approximate ΔT of 40 °C

(2) DC current (A) that will cause L_0 to drop approximately 30 %

For technical questions, contact: magnetics@vishay.com

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DIMENSIONS in inches [millimeters]



Typical pad layout

DESCRIPTION

IMSC1008AZ	2.2 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I	M	S	C	1	0	0	8	A	Z	E	R	2	R	2	M
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			INDUCTANCE TOLERANCE

ER = tape and reel

2R2 = 2.2 µH

M = ± 20 %

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