

IMS05WDSH3R3K40 Datasheet



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DiGi Electronics Part Number	IMS05WDSH3R3K40-DG
Manufacturer	Vishay Dale
Manufacturer Product Number	IMS05WDSH3R3K40
Description	FIXED IND 3.3UH 1.03A 310MOHM TH
Detailed Description	3.3 μ H Shielded Inductor 1.03 A 310mOhm Max Axial

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Purchase and inquiry

Manufacturer Product Number:

IMS05WDSH3R3K40

Series:

IMS-5WD-40

Manufacturer:

Vishay Dale



Inductors, Commercial, Molded, Shielded, Axial Leaded



ELECTRICAL SPECIFICATIONS

Inductance Tolerance: $\pm 10\%$ standard, $\pm 5\%$ available

Insulation Resistance: 1000 M Ω minimum per MIL-STD-202, method 302, test condition B

Dielectric Withstanding Voltage: 1000 V_{AC} per MIL-STD-202, method 301 (at sea level)

Percent Coupling: 3% maximum per MIL-PRF-15305

Operating Temperature: -55 °C to +105 °C

ENVIRONMENTAL PERFORMANCE		
TEST	CONDITIONS	SPECIFICATIONS
Barometric Pressure	C	MIL-STD-202, method 105
Thermal Shock	A-1	MIL-STD-202, method 107
Flammability	-	MIL-STD-202, method 111
Overload	-	MIL-PRF-15305
Low Temperature Storage	-	MIL-PRF-15305
Resistance to Soldering Heat	A	MIL-STD-202, method 210
Resistance to Solvents	-	MIL-STD-202, method 215

FEATURES

- Wide inductance range in small package
- Flame retardant coating
- Electromagnetic shield-finest shield available
- Precision performance, excellent reliability, sturdy construction
- Epoxy molded construction provides superior moisture protection
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT

MECHANICAL SPECIFICATIONS

Terminals: 5 lb pull per MIL-STD-202, method 211, test condition A

Weight: IMS-5 = 0.85 g maximum

MATERIAL SPECIFICATIONS

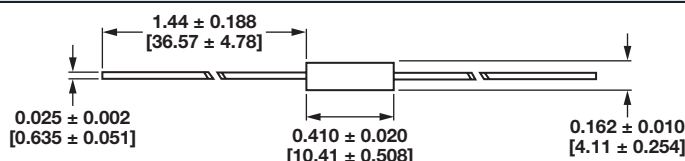
Encapsulant: Epoxy

Standard Terminals: #22 AWG, tinned copper

INDUCTANCE RANGE AND MILITARY STANDARD

INDUCTANCE RANGE (μ H)		MATERIAL	
MIN.	MAX.	CORE	SHIELD
0.10	0.82	Phenolic	Powdered iron
1.0	12	Powdered iron	Powdered iron
15	8200	Ferrite	Ferrite

DIMENSIONS in inches [millimeters]



STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. (μ H)	TOL. (%)	Q MIN.	TEST FREQUENCY L AND Q (MHz)	SRF MIN. (MHz) ⁽¹⁾	DCR MAX. (Ω)	RATED DC CURRENT (mA) ⁽²⁾	INCREMENTAL CURRENT (mA) ⁽³⁾
IMS-5	0.10	± 10	50	25.0	250.0	0.025	1790	-
IMS-5	0.12	± 10	51	25.0	250.0	0.034	1530	-
IMS-5	0.15	± 10	51	25.0	250.0	0.037	1470	-
IMS-5	0.18	± 10	50	25.0	250.0	0.047	1300	-
IMS-5	0.22	± 10	49	25.0	250.0	0.067	1100	-
IMS-5	0.27	± 10	47	25.0	250.0	0.11	855	-
IMS-5	0.33	± 10	46	25.0	250.0	0.13	780	-
IMS-5	0.39	± 10	44	25.0	250.0	0.18	670	-
IMS-5	0.47	± 10	44	25.0	235.0	0.25	565	-
IMS-5	0.56	± 10	43	25.0	210.0	0.33	490	-
IMS-5	0.68	± 10	42	25.0	190.0	0.45	420	-
IMS-5	0.82	± 10	40	25.0	180.0	0.59	370	-

Notes

⁽¹⁾ Measured with full length lead

⁽²⁾ **Rated DC current:** Based on maximum temperature rise not to exceed 15 °C at +90 °C ambient

⁽³⁾ **Incremental current:** The minimum typical current at which the inductance will be decreased by 5% from its initial zero DC value



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IMS-5

Vishay Dale

STANDARD ELECTRICAL SPECIFICATIONS								
MODEL	IND. (μH)	TOL. (%)	Q MIN.	TEST FREQUENCY L AND Q (MHz)	SRF MIN. (MHz) ⁽¹⁾	DCR MAX. (Ω)	RATED DC CURRENT (mA) ⁽²⁾	INCREMENTAL CURRENT (mA) ⁽³⁾
IMS-5	1.0	± 10	44	25.0	140.0	0.07	1070	-
IMS-5	1.2	± 10	44	7.9	130.0	0.10	895	-
IMS-5	1.5	± 10	44	7.9	115.0	0.12	815	-
IMS-5	1.8	± 10	44	7.9	105.0	0.14	775	-
IMS-5	2.2	± 10	44	7.9	100.0	0.19	650	-
IMS-5	2.7	± 10	44	7.9	92.0	0.28	535	-
IMS-5	3.3	± 10	44	7.9	85.0	0.35	480	-
IMS-5	3.9	± 10	44	7.9	75.0	0.40	450	-
IMS-5	4.7	± 10	44	7.9	70.0	0.55	380	-
IMS-5	5.6	± 10	44	7.9	65.0	0.72	335	-
IMS-5	6.8	± 10	50	7.9	55.0	1.02	280	-
IMS-5	8.2	± 10	50	7.9	50.0	1.32	250	-
IMS-5	10	± 10	50	7.9	46.0	1.62	220	-
IMS-5	12	± 10	55	2.5	44.0	2.00	200	-
IMS-5	15	± 10	45	2.5	49.0	0.80	315	250.0
IMS-5	18	± 10	45	2.5	45.0	0.89	300	235.0
IMS-5	22	± 10	45	2.5	41.0	0.96	290	220.0
IMS-5	27	± 10	45	2.5	38.0	1.19	260	200.0
IMS-5	33	± 10	45	2.5	34.0	1.37	240	190.0
IMS-5	39	± 10	50	2.5	29.0	1.93	205	180.0
IMS-5	47	± 10	50	2.5	27.0	2.11	195	175.0
IMS-5	56	± 10	50	2.5	25.0	2.23	190	160.0
IMS-5	68	± 10	50	2.5	21.0	2.70	170	150.0
IMS-5	82	± 10	50	2.5	10.5	2.44	180	140.0
IMS-5	100	± 10	50	2.5	10.0	3.12	160	120.0
IMS-5	120	± 10	55	0.79	9.7	3.6	150	95.0
IMS-5	150	± 10	55	0.79	8.5	4.1	140	90.0
IMS-5	180	± 10	55	0.79	8.0	4.4	135	85.0
IMS-5	220	± 10	55	0.79	7.5	5.0	125	80.0
IMS-5	270	± 10	55	0.79	7.0	5.8	115	70.0
IMS-5	330	± 10	55	0.79	6.5	6.4	110	65.0
IMS-5	390	± 10	60	0.79	6.2	7.4	105	60.0
IMS-5	470	± 10	60	0.79	5.7	9.5	92	58.0
IMS-5	560	± 10	60	0.79	4.7	10.5	90	55.0
IMS-5	680	± 10	60	0.79	4.5	11.8	80	50.0
IMS-5	820	± 10	60	0.79	4.2	13.0	80	45.0
IMS-5	1000	± 10	60	0.79	3.8	17.5	70	40.0
IMS-5	1200	± 10	45	0.25	1.5	22.1	60	35.0
IMS-5	1500	± 10	45	0.25	1.2	26.5	55	33.0
IMS-5	1800	± 10	45	0.25	1.0	29.9	50	30.0
IMS-5	2200	± 10	45	0.25	0.97	33.8	50	27.0
IMS-5	2700	± 10	45	0.25	0.92	47.3	40	25.0
IMS-5	3300	± 10	45	0.25	0.84	53.0	40	22.0
IMS-5	3900	± 10	45	0.25	0.80	73.8	35	20.0
IMS-5	4700	± 10	45	0.25	0.74	81.6	31	19.0
IMS-5	5600	± 10	44	0.25	0.73	98.9	28	17.0
IMS-5	6800	± 10	40	0.25	0.66	111.0	27	16.0
IMS-5	8200	± 10	40	0.25	0.54	119.0	26	15.0

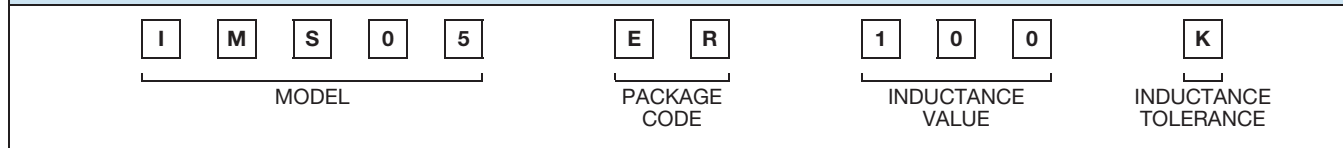
Notes

- (1) Measured with full length lead
- (2) **Rated DC current:** Based on maximum temperature rise not to exceed 15 °C at +90 °C ambient
- (3) **Incremental current:** The minimum typical current at which the inductance will be decreased by 5 % from its initial zero DC value

ORDERING INFORMATION

IMS-5	10 μH	± 10 %	ER	e2
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER





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