



## Inductors

Military/Established Reliability, MIL-C-39010 Qualified  
M39010/01/02, Magnetic Shield



### FEATURES

- MIL-C-39010/01 (phenolic core - iron sleeve).
- MIL-C-39010/02 (iron core - iron sleeve).

### ELECTRICAL SPECIFICATIONS

**Inductance Tolerance:**  $\pm 5\%$ ,  $\pm 10\%$ .

**Dielectric Strength:** 1000V RMS at sea level.

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

**Self-Resonant Frequency:** Measured per MIL-C-39010.

**Q:** Measured on a Q-Meter.

**Maximum Current:** Based on temperature rise not to exceed 15°C at + 90°C ambient.

### MECHANICAL SPECIFICATIONS

**Terminal Strength:** Meets 5 pound pull test; three 360° rotations in alternate directions.

### DENSITY SPECIFICATIONS

**Weight:** 1 gram maximum.

**Shielding:** At the coupling test frequency two units assembled side by side exhibit less than 3% coupling.

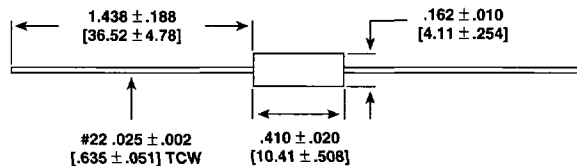
### ENVIRONMENTAL SPECIFICATIONS

**Moisture:** Meets requirements of MIL-C-39010.

**Vibration:** High frequency, 10Hz to 2000Hz @ 20 G  $\pm 10\%$  maximum for 12 logarithmic swings each of 20 minute duration repeated for each of three mutually perpendicular planes.

**Shock:** 100 G, 6 MS.

### DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]



### STANDARD ELECTRICAL SPECIFICATIONS

MODEL	MIL-C-39010 TYPE	DASH † NUMBER	IND. ( $\mu$ H)	TOL.	Q MIN.	TEST FREQ. (MHz)	SELF-RESONANT FREQ. MIN. (MHz)	DCR MAX. (Ohms)	RATED DC CURRENT (mA)	INCREMENTAL CURRENT (mA)
IMS-5A-ER	M39010/01	AR10**	.10	$\pm 5\%$ , $\pm 10\%$	50	25	250	.025	1790	—
IMS-5A-ER	M39010/01	AR11**	.11	$\pm 5\%$	50	25	250	.034	1530	—
IMS-5A-ER	M39010/01	AR12**	.12	$\pm 5\%$ , $\pm 10\%$	50	25	250	.034	1530	—
IMS-5A-ER	M39010/01	AR13**	.13	$\pm 5\%$	50	25	250	.037	1470	—
IMS-5A-ER	M39010/01	AR15**	.15	$\pm 5\%$ , $\pm 10\%$	50	25	250	.037	1470	—
IMS-5A-ER	M39010/01	AR16**	.16	$\pm 5\%$	50	25	250	.047	1300	—
IMS-5A-ER	M39010/01	AR18**	.18	$\pm 5\%$ , $\pm 10\%$	50	25	250	.047	1300	—
IMS-5A-ER	M39010/01	AR20**	.20	$\pm 5\%$	49	25	250	.067	1100	—
IMS-5A-ER	M39010/01	AR22**	.22	$\pm 5\%$ , $\pm 10\%$	49	25	250	.067	1100	—
IMS-5A-ER	M39010/01	AR24**	.24	$\pm 5\%$	47	25	250	.11	853	—
IMS-5A-ER	M39010/01	AR27**	.27	$\pm 5\%$ , $\pm 10\%$	47	25	250	.11	853	—
IMS-5A-ER	M39010/01	AR30**	.30	$\pm 5\%$	46	25	250	.13	780	—

† The complete Dash Number will include two additional letters (indicated by \*\*). The first additional letter (J = 5%, K = 10%, L = 20%) will indicate the inductance tolerance and the second additional letter will indicate the failure rate symbol (e.g., M, P, R, S) and will be added to the

**NOTE:** Listing of Military Standard does not imply qualification. Contact factory for latest government QPL information.

# Models IMS-5A-ER and IMS-5B-ER



Vishay Dale

STANDARD ELECTRICAL SPECIFICATIONS										
MODEL	MIL-C-39010 TYPE	DASH † NUMBER	IND. (μH)	TOLERANCE	Q MIN.	TEST FREQ. (MHz)	SELF-RESONANT FREQ. MIN. (MHz)	DCR MAX. (Ohms)	RATED DC CURRENT (mA)	INCREMENTAL CURRENT (mA)
MS-5A-ER	M39010/01	AR33**	.33	± 5%, ± 10%	46	25	250	.13	780	—
IMS-5A-ER	M39010/01	AR36**	.36	± 5%	44	25	250	.18	670	—
IMS-5A-ER	M39010/01	AR39**	.39	± 5%, ± 10%	44	25	250	.18	670	—
IMS-5A-ER	M39010/01	AR43**	.43	± 5%	44	25	235	.25	565	—
IMS-5A-ER	M39010/01	AR47**	.47	± 5%, ± 10%	44	25	235	.25	565	—
IMS-5A-ER	M39010/01	AR51**	.51	± 5%	43	25	210	.33	490	—
IMS-5A-ER	M39010/01	AR56**	.56	± 5%, ± 10%	43	25	210	.33	490	—
IMS-5A-ER	M39010/01	AR62**	.62	± 5%	42	25	190	.45	420	—
IMS-5A-ER	M39010/01	AR68**	.68	± 5%, ± 10%	42	25	190	.45	420	—
IMS-5A-ER	M39010/01	AR75**	.75	± 5%	40	25	180	.59	370	—
IMS-5A-ER	M39010/01	AR82**	.82	± 5%, ± 10%	40	25	180	.59	370	—
IMS-5B-ER	M39010/02	AR91**	.91	± 5%	44	25	140	.07	1070	—
IMS-5B-ER	M39010/02	A1R0**	1.00	± 5%, ± 10%	44	25	140	.07	1070	—
IMS-5B-ER	M39010/02	A1R1**	1.10	± 5%	44	7.9	130	.10	895	—
IMS-5B-ER	M39010/02	A1R2**	1.20	± 5%, ± 10%	44	7.9	130	.10	895	—
IMS-5B-ER	M39010/02	A1R3**	1.30	± 5%	44	7.9	115	.12	815	—
IMS-5B-ER	M39010/02	A1R5**	1.50	± 5%, ± 10%	44	7.9	115	.12	815	—
IMS-5B-ER	M39010/02	A1R6**	1.60	± 5%	44	7.9	105	.14	755	—
IMS-5B-ER	M39010/02	A1R8**	1.80	± 5%, ± 10%	44	7.9	105	.14	755	—
IMS-5B-ER	M39010/02	A2R0**	2.00	± 5%	44	7.9	100	.19	650	—
IMS-5B-ER	M39010/02	A2R2**	2.20	± 5%, ± 10%	44	7.9	100	.19	650	—
IMS-5B-ER	M39010/02	A2R4**	2.40	± 5%	44	7.9	92	.28	535	—
IMS-5B-ER	M39010/02	A2R7**	2.70	± 5%, ± 10%	44	7.9	92	.28	535	—
IMS-5B-ER	M39010/02	A3R0**	3.00	± 5%	44	7.9	85	.35	480	—
IMS-5B-ER	M39010/02	A3R3**	3.30	± 5%, ± 10%	44	7.9	85	.35	480	—
IMS-5B-ER	M39010/02	A3R6**	3.60	± 5%	44	7.9	75	.40	450	—
IMS-5B-ER	M39010/02	A3R9**	3.90	± 5%, ± 10%	44	7.9	75	.40	450	—
IMS-5B-ER	M39010/02	A4R3**	4.30	± 5%	44	7.9	70	.55	380	—
IMS-5B-ER	M39010/02	A4R7**	4.70	± 5%, ± 10%	44	7.9	70	.55	380	—
IMS-5B-ER	M39010/02	A5R1**	5.10	± 5%	44	7.9	65	.72	335	—
IMS-5B-ER	M39010/02	A5R6**	5.60	± 5%, ± 10%	44	7.9	65	.72	335	—
IMS-5B-ER	M39010/02	A6R2**	6.20	± 5%	44	7.9	55	1.02	280	—
IMS-5B-ER	M39010/02	A6R8**	6.80	± 5%, ± 10%	50	7.9	55	1.02	280	—
IMS-5B-ER	M39010/02	A7R5**	7.50	± 5%	50	7.9	50	1.32	245	—
IMS-5B-ER	M39010/02	A8R2**	8.20	± 5%, ± 10%	50	7.9	50	1.32	245	—
IMS-5B-ER	M39010/02	A9R1**	9.10	± 5%	50	7.9	46	1.62	220	—
IMS-5B-ER	M39010/02	A100**	10	± 5%, ± 10%	50	7.9	46	1.62	220	—
IMS-5B-ER	M39010/02	A110**	11	± 5%	50	2.5	44	2.00	200	—
IMS-5B-ER	M39010/02	A120**	12	± 5%, ± 10%	55	2.5	44	2.00	200	—

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PART MARKING
— Military part number
— Manufacturer's source code
— "JAN" marking, date code and lot symbol

HOW TO ORDER - MILITARY PART NUMBER					
M39010	01	A	R10	K	R
MIL. SPEC. NO. INDICATING MIL-C-39010	MIL. SPEC. SHEET NO.	TEMPERATURE CLASS	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	FAILURE RATE LEVEL