



# Inductors

Military/Established Reliability  
MIL-C-39010 Qualified, M39010/08/09



## FEATURES

- MIL-C-39010/08 (Phenolic Core).
- MIL-C-39010/09 (Iron Core).

## ELECTRICAL SPECIFICATIONS

**Inductance Tolerance:**  $\pm 5\%$ ,  $\pm 10\%$ .  
**Dielectric Strength:** 1000VRMS at sea level.  
**Operating Temperature:** - 55°C to + 125°C, phenolic core.  
 - 55°C to + 105°C, iron core.  
**Self-Resonant Frequency:** Measured per MIL-C-39010.

**Maximum Current:** Based on 35°C rise at + 90°C ambient for phenolic core. 15°C rise at + 90°C ambient for iron core.

## MECHANICAL SPECIFICATIONS

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

## DENSITY SPECIFICATIONS

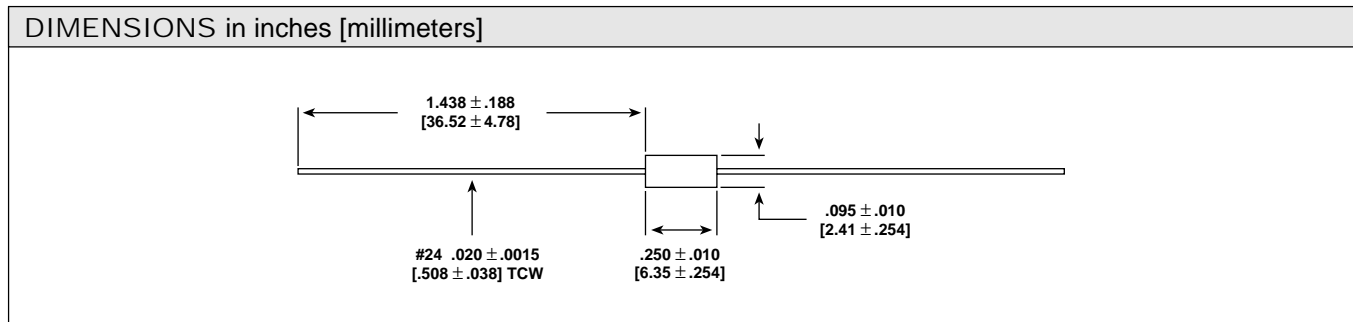
**Weight:** 0.30 gram maximum.

## ENVIRONMENTAL SPECIFICATIONS

**Moisture:** Meets requirements of MIL-C-39010 (latest revision).

**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:** 100G, 6MS.



## STANDARD ELECTRICAL SPECIFICATIONS

MODEL	MIL-C-39010 TYPE	DASH † NUMBER	IND. (μH)	TOL.	Q MIN.	TEST FREQ. (MHz)	SELF-RESONANT FREQ. MIN. (MHz)	DCR + 25°C MAX. (Ohms)	RATED DC* CURRENT (mA)
IM-2A-ER	M39010/08	BR10**	0.10	$\pm 5\%$ , $\pm 10\%$	40	25	680	0.08	1350
IM-2A-ER	M39010/08	BR11**	0.11	$\pm 5\%$	40	25	640	0.09	1270
IM-2A-ER	M39010/08	BR12**	0.12	$\pm 5\%$ , $\pm 10\%$	40	25	640	0.09	1270
IM-2A-ER	M39010/08	BR13**	0.13	$\pm 5\%$	38	25	600	0.10	1200
IM-2A-ER	M39010/08	BR15**	0.15	$\pm 5\%$ , $\pm 10\%$	38	25	600	0.10	1200
IM-2A-ER	M39010/08	BR16**	0.16	$\pm 5\%$	35	25	550	0.12	1105
IM-2A-ER	M39010/08	BR18**	0.18	$\pm 5\%$ , $\pm 10\%$	35	25	550	0.12	1105
IM-2A-ER	M39010/08	BR20**	0.20	$\pm 5\%$	33	25	510	0.14	1025
IM-2A-ER	M39010/08	BR22**	0.22	$\pm 5\%$ , $\pm 10\%$	33	25	510	0.14	1025
IM-2A-ER	M39010/08	BR24**	0.24	$\pm 5\%$	33	25	430	0.16	960
IM-2A-ER	M39010/08	BR27**	0.27	$\pm 5\%$ , $\pm 10\%$	33	25	430	0.16	960
IM-2A-ER	M39010/08	BR30**	0.30	$\pm 5\%$	30	25	410	0.22	815
IM-2A-ER	M39010/08	BR33**	0.33	$\pm 5\%$ , $\pm 10\%$	30	25	410	0.22	815

† 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 end of the Dash Number. \*The Rated DC Current is based on + 90°C ambient temperature with a 35°C rise.

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

# IM-2A-ER and IM-2B-ER



Vishay Dale

Inductors, Military/Established Reliability,  
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## STANDARD ELECTRICAL SPECIFICATIONS

MODEL	MIL-C-39010 TYPE	DASH † NUMBER	IND. (µH)	TOLERANCE	Q MIN.	TEST FREQ. (MHz)	SELF-RESONANT FREQ. MIN. (MHz)	DCR + 25°C MAX. (Ohms)	RATED DC* CURRENT (mA)
IM-2A-ER	M39010/08	BR36**	0.36	± 5%	30	25	365	0.30	700
IM-2A-ER	M39010/08	BR39**	0.39	± 5%, ± 10%	30	25	365	0.30	700
IM-2A-ER	M39010/08	BR43**	0.43	± 5%	30	25	330	0.35	650
IM-2A-ER	M39010/08	BR47**	0.47	± 5%, ± 10%	30	25	330	0.35	650
IM-2A-ER	M39010/08	BR51**	0.51	± 5%	30	25	300	0.50	545
IM-2A-ER	M39010/08	BR56**	0.56	± 5%, ± 10%	30	25	300	0.50	545
IM-2A-ER	M39010/08	BR62**	0.62	± 5%	28	25	275	0.60	495
IM-2A-ER	M39010/08	BR68**	0.68	± 5%, ± 10%	28	25	275	0.60	495
IM-2A-ER	M39010/08	BR75**	0.75	± 5%	28	25	250	0.85	415
IM-2A-ER	M39010/08	BR82**	0.82	± 5%, ± 10%	28	25	250	0.85	415
IM-2A-ER	M39010/08	BR91**	0.91	± 5%	25	25	230	1.00	385
IM-2A-ER	M39010/08	B1R0**	1.00	± 5%, ± 10%	25	25	230	1.00	385
IM-2B-ER	M39010/09	A1R1**	1.1	± 5%	25	7.9	150	0.18	590
IM-2B-ER	M39010/09	A1R2**	1.2	± 5%, ± 10%	25	7.9	150	0.18	590
IM-2B-ER	M39010/09	A1R3**	1.3	± 5%	25	7.9	140	0.22	535
IM-2B-ER	M39010/09	A1R5**	1.5	± 5%, ± 10%	28	7.9	140	0.22	535
IM-2B-ER	M39010/09	A1R6**	1.6	± 5%	28	7.9	125	0.30	455
IM-2B-ER	M39010/09	A1R8**	1.8	± 5%, ± 10%	30	7.9	125	0.30	455
IM-2B-ER	M39010/09	A2R0**	2.0	± 5%	30	7.9	115	0.40	395
IM-2B-ER	M39010/09	A2R2**	2.2	± 5%, ± 10%	30	7.9	115	0.40	395
IM-2B-ER	M39010/09	A2R4**	2.4	± 5%	30	7.9	100	0.55	335
IM-2B-ER	M39010/09	A2R7**	2.7	± 5%, ± 10%	37	7.9	100	0.55	335
IM-2B-ER	M39010/09	A3R0**	3.0	± 5%	37	7.9	90	0.85	270
IM-2B-ER	M39010/09	A3R3**	3.3	± 5%, ± 10%	45	7.9	90	0.85	270
IM-2B-ER	M39010/09	A3R6**	3.6	± 5%	45	7.9	80	1.00	250
IM-2B-ER	M39010/09	A3R9**	3.9	± 5%, ± 10%	45	7.9	80	1.00	250
IM-2B-ER	M39010/09	A4R3**	4.3	± 5%	45	7.9	75	1.20	230
IM-2B-ER	M39010/09	A4R7**	4.7	± 5%, ± 10%	45	7.9	75	1.20	230
IM-2B-ER	M39010/09	A5R1**	5.1	± 5%	45	7.9	65	1.80	185
IM-2B-ER	M39010/09	A5R6**	5.6	± 5%, ± 10%	50	7.9	65	1.80	185
IM-2B-ER	M39010/09	A6R2**	6.2	± 5%	50	7.9	60	2.00	175
IM-2B-ER	M39010/09	A6R8**	6.8	± 5%, ± 10%	50	7.9	60	2.00	175
IM-2B-ER	M39010/09	A7R5**	7.5	± 5%	50	7.9	55	2.70	155
IM-2B-ER	M39010/09	A8R2**	8.2	± 5%, ± 10%	55	7.9	55	2.70	155
IM-2B-ER	M39010/09	A9R1**	9.1	± 5%	55	7.9	50	3.70	130
IM-2B-ER	M39010/09	A100**	10	± 5%, ± 10%	55	7.9	50	3.70	130
IM-2B-ER	M39010/09	A110**	11	± 5%	45	2.5	40	2.70	130
IM-2B-ER	M39010/09	A120**	12	± 5%, ± 10%	45	2.5	40	2.70	155
IM-2B-ER	M39010/09	A130**	13	± 5%	40	2.5	35	2.80	150
IM-2B-ER	M39010/09	A150**	15	± 5%, ± 10%	40	2.5	35	2.80	150
IM-2B-ER	M39010/09	A160**	16	± 5%	40	2.5	30	3.10	145
IM-2B-ER	M39010/09	A180**	18	± 5%, ± 10%	50	2.5	30	3.10	145
IM-2B-ER	M39010/09	A200**	20	± 5%	50	2.5	25	3.30	140
IM-2B-ER	M39010/09	A220**	22	± 5%, ± 10%	50	2.5	25	3.30	140
IM-2B-ER	M39010/09	A240**	24	± 5%	50	2.5	20	3.50	135
IM-2B-ER	M39010/09	A270**	27	± 5%, ± 10%	50	2.5	20	3.50	135

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

ORDERING INFORMATION - MILITARY PART NUMBER					
<b>M39010</b>	<b>/</b>	<b>08</b>	<b>-</b>	<b>B</b>	<b>1R0</b>
MIL. SPEC. NO. INDICATING MIL-C-39010		MIL. SPEC. SHEET NO.		TEMPERATURE CLASS	INDUCTANCE VALUE
					K
					R
					FAILURE RATE LEVEL