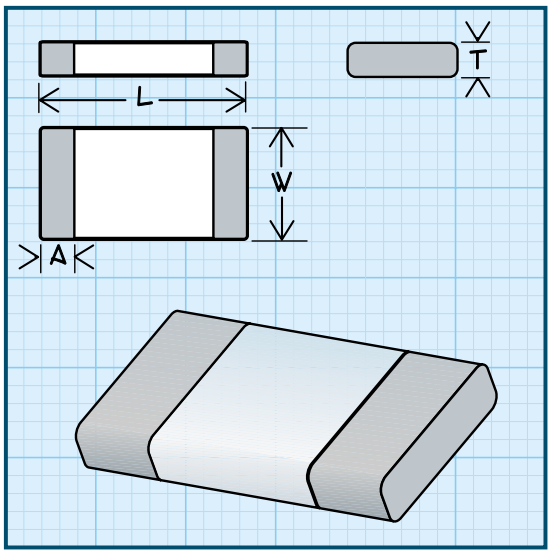
Series

EMI0603R, EMI0805R, EMI1206R, EMI1210R, EMI1806R, EMI1812R

RoHS Compliant

EMI0603, EMI0805, EMI1206, EMI1210, EMI1806, EMI1812

Traditional First Quality



Small size utilizing a monolithic ferrite structure which results in excellent magnetic shielding.

Operating Temperature Range –55°C to +125°C

Terminations Suitable for flow & reflow soldering application.

Current Rating The current at which the Impedance will change by a maximum of ±25%.

Note † Test Frequency for EMI1206-1500 = 50 MHz
*** Test Frequency for EMI1206-2000 = 30 MHz

Additional values available - contact factory for your application

***Complete part # must include series # PLUS the dash #**

For further surface finish information, refer to TECHNICAL section of this catalog.

DASH NUMBER*	IMPEDANCE @ 100 MHz (OHMS) ±25%	DC RESISTANCE (OHMS) Max	CURRENT RATING MAXIMUM (mA)
SERIES EMI0603			
-60	60	0.10	600
-68	68	0.10	600
-80	80	0.10	400
-120	120	0.15	400
-220	220	0.30	300
-300	300	0.35	300
-450	450	0.40	300
-600	600	0.45	200
-750	750	0.60	100
-1000	1000	0.60	100
SERIES EMI0805			
-11	11	0.05	600
-40	40	0.05	600
-90	90	0.10	600
-120	120	0.15	500
-150	150	0.15	500
-220	220	0.22	500
-300	300	0.20	500
-400	400	0.30	500
-600	600	0.30	500
-1000	1000	0.35	300
-1500	1500	0.40	200
-2000	2000	0.50	200
SERIES EMI1206			
-31	31	0.05	600
-50	50	0.10	600
-70	70	0.10	600
-90	90	0.15	500
-120	120	0.15	500
-150	150	0.15	500
-200	200	0.20	500
-300	300	0.20	500
-600	600	0.30	500
-800	800	0.30	200
-1000	1000	0.40	200
-1200	1200	0.40	200
-1500†	1500	0.50	200
-2000***	2000	0.50	200
SERIES EMI1210			
-60	60	0.30	400
SERIES EMI1806			
-80	80	0.10	400
-105	100	0.20	300
-150	150	0.30	200
SERIES EMI1812			
-125	120	0.40	200

Physical Parameters and Packaging

	EMI0603	EMI0805	EMI1206	EMI1210	EMI1806	EMI1812
Dimensions						
L - inches (mm)	0.063±0.006 (1.6±0.15)	0.079±0.008 (2.0±0.2)	0.126±0.008 (3.2±0.2)	0.126±0.008 (3.2±0.2)	0.177±0.010 (4.5±0.25)	0.177±0.010 (4.5±0.25)
W - inches (mm)	0.031±0.006 (0.8±0.15)	0.049±0.008 (1.25±0.2)	0.063±0.008 (1.6±0.2)	0.098±0.008 (2.5±0.2)	0.063±0.008 (1.6±0.2)	0.126±0.010 (3.2±0.25)
T - inches (mm)	0.031±0.006 (0.8±0.15)	0.035±0.008 (0.9±0.2)	0.043±0.008 (1.1±0.2)	0.051±0.008 (1.3±0.2)	0.063±0.008 (1.6±0.2)	0.059±0.010 (1.5±0.25)
A - inches (mm)	0.012±0.008 (0.3±0.20)	0.020±0.012 (0.50±0.300)	0.020±0.012 (0.50±0.300)	0.020±0.012 (0.50±0.300)	0.022±0.016 (0.60±0.400)	0.022±0.016 (0.60±0.400)
Packaging	Tape & reel (12mm); max. pieces per reel as follows					
	4000	4000	3000	2000	2000	1000

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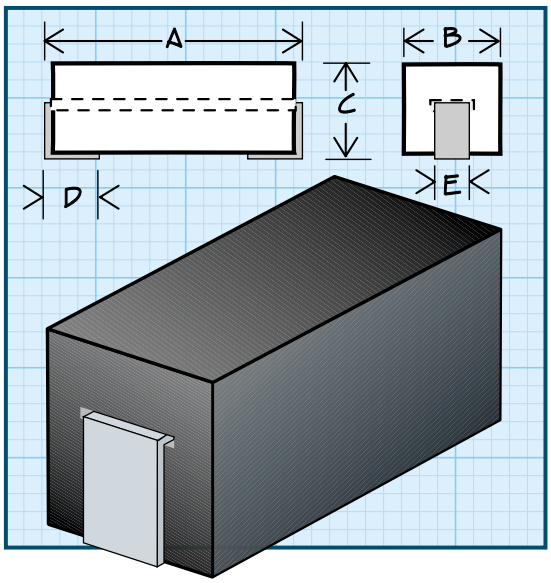
Series 4221R 4221

ROHS Compliant

Traditional First Quality

Surface Mount Filter Bead



Dash Number*	Impedance (OHMS) @25MHz (Min.)	@100MHz (±20%)
-1	22	47
-2	45	95
-3	22	42
-4	43	85

***Complete part # must include series # PLUS the dash #**

For further surface finish information, refer to TECHNICAL section of this catalog.

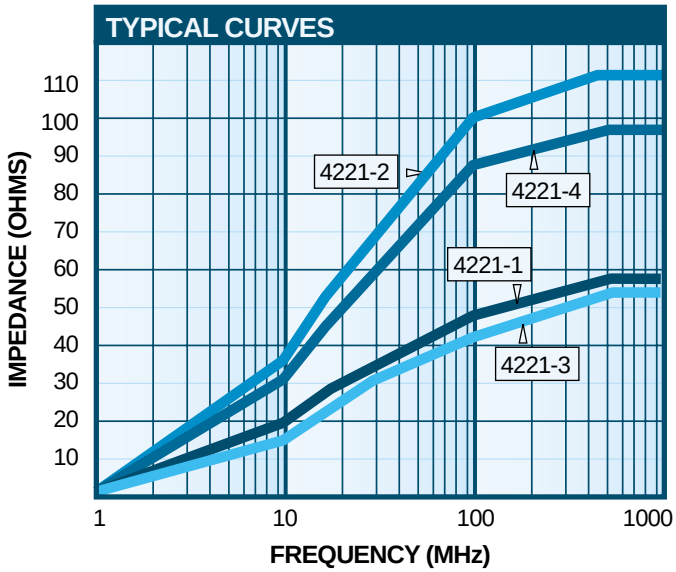
Operating Temperature Range –55°C to +125°C

Current Rating 5 Amps max. (35°C Rise, 90° Ambient)

Material Ferrite bead with plated copper lead

Packaging Tape & reel
Series 4221-1 and 4221-3 (12mm)
Series 4221-2 and 4221-4 (16mm)
7" reel, 500 pieces max.; 13" reel, 4000 pieces max.

	4221 - 1	4221 - 2	4221 - 3	4221 - 4
A in.	0.197 +0.011/-0.028	0.374 +0.015/-0.028	0.217 +0.011/-0.028	0.350 +0.015/-0.028
mm.	(5.0 +0.3/-0.7)	(9.5 +0.4/-0.7)	(5.5 +0.3/-0.7)	(8.9 +0.4/-0.7)
B in.	0.120 ± 0.006	0.120 ± 0.006	0.117 ± 0.006	0.187 ± 0.006
mm.	(3.05 ± 0.15)	(3.05 ± 0.15)	(2.97 ± 0.15)	(4.75 ± 0.15)
C in.	0.120 +0.007/-0.015	0.120 +0.007/-0.015	0.138 +0.007/-0.015	0.138 +0.007/-0.015
mm.	(3.05 +0.2/-0.4)	(3.05 +0.2/-0.4)	(3.50 +0.2/-0.4)	(3.50 +0.2/-0.4)
D in.	0.059 ± 0.025	0.059 ± 0.025	0.059 ± 0.025	0.059 ± 0.025
mm.	(1.50 ± 0.63)	(1.50 ± 0.63)	(1.50 ± 0.63)	(1.50 ± 0.63)
E in.	0.050 ± 0.003	0.050 ± 0.003	0.050 ± 0.003	0.073 ± 0.003
mm.	(1.25 ± 0.07)	(1.25 ± 0.07)	(1.25 ±0.07)	(1.85 ± 0.07)



For more detailed graphs, contact factory

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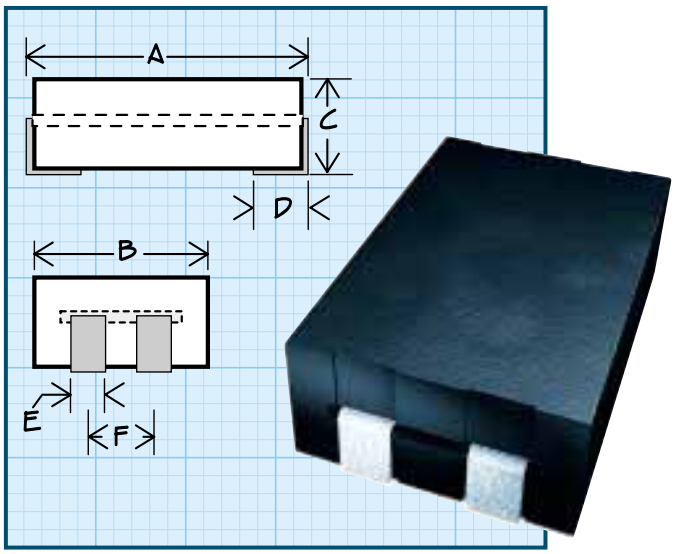
Series 4222R 4222

RoHS Compliant

Traditional First Quality

Surface Mount Common Mode Bead



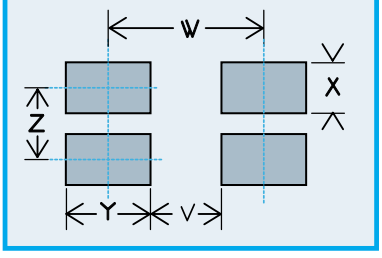
Mechanical Configuration Ferrite bead with plated copper wire. Provides a common path for the magnetic flux generated by the current to and from the load. The resulting effect is zero magnetics flux in the core.

Physical Parameters

	Inches	Millimeters
A	0.335 ± 0.031	8.51 ± 0.79
B	0.220 ± 0.010	5.6 ± 0.25
C	0.112 ± 0.010	2.85 ± 0.25
D	0.050 ± 0.010	1.27 ± 0.25
E	0.045 ± 0.005	1.10 ± 0.122
F (Ref.)	0.10	2.54
V (Ref.)	0.177	4.5
W (Ref.)	0.295	7.5
X (Ref.)	0.071	1.8
Y (Ref.)	0.118	3.0
Z (Ref.)	0.100	2.54

Packaging Tape & reel (16mm): 7" reel, 500 pieces max.; 13" reel, 2400 pieces max.

LAND PATTERN DIMENSIONS



Performance Withstands a breakdown voltage of 500 VDC

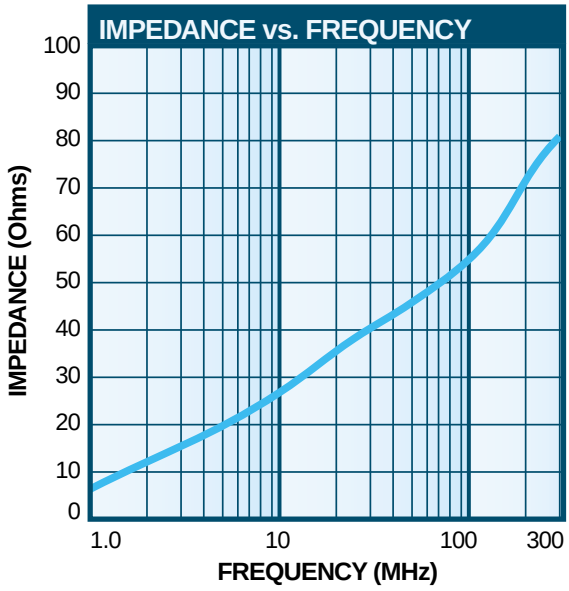
DCR 0.010 Ohms Max.

Current Rating at 90°C Ambient 35°C Rise, 5 Amps max.

Impedances are measured on the HP4191A Impedance Analyzer

Impedance vs. Frequency (Typical)

@ MHz	Ohms
1	6.0
10	26.
25	38.
50	45.
100	54.
300	80.



For more detailed graphs, contact factory

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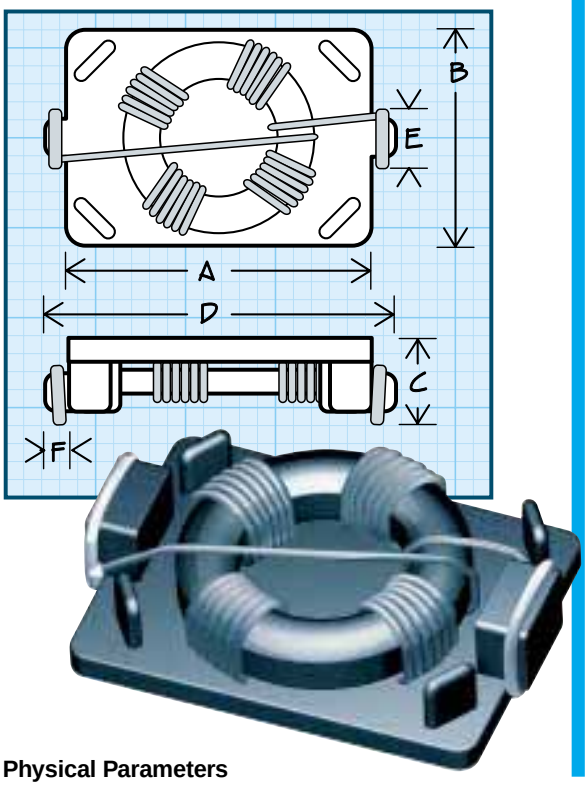
Series 8454R 8454

RoHS Compliant

Traditional First Quality

Surface Mount EMI/RFI Filter Chokes



DASH NUMBER*	VOLTAGE RATING (V)	CURRENT RATING MAXIMUM (mAmps)	INDUCTANCE (µH) ± 50%	DC RESISTANCE MAXIMUM (M OHMS)	INSULATION VOLTAGE (VDC) **	IMPEDANCE MINIMUM 25 MHz	IMPEDANCE MINIMUM 100 MHz
-1	50	500	1.0	25	200	45	60
-1R5	50	500	1.5	60	200	80	870
-2	50	500	2.0	100	200	270	1065
-11	50	500	11	55	200	400	400
-82	50	500	82	80	200	1200	600

***Complete part # must include series # PLUS the dash #**

For further surface finish information, refer to TECHNICAL section of this catalog.

API Delevan's combination of high performance Ni-Zn cores and low capacitance type windings allow for superior frequency characteristics.

- Only small scattered fields are generated by the windings
- Ensures excellent attenuation characteristics over a wide frequency range
- Packaged in a flat-top (UL94V-O) header, compatible with auto insertion equipment

Typical Applications Data line filters; audio signal filters; current supply choke; video signal filters.

- Sample kit available

Notes

**** 1.** Insulation Voltage (VDC) is one minute line to case; inductance measured at 1kHz/1V

2. Impedance measurement using HP4191A impedance analyzer.

Physical Parameters

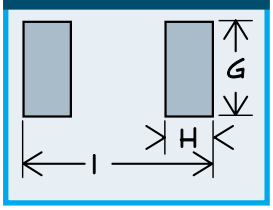
	Inches	Millimeters
A	0.260 to 0.276	6.6 to 7.0
B	0.205 to 0.228	5.2 to 5.8
C	0.071 to 0.083	1.8 to 2.1
D	0.323 to 0.339	8.2 to 8.6
E	0.091 Max.	2.3 Max.
F	0.026 to 0.037	0.65 to 0.95
G	0.102	2.6
H	0.051	1.3
I	0.363	8.8

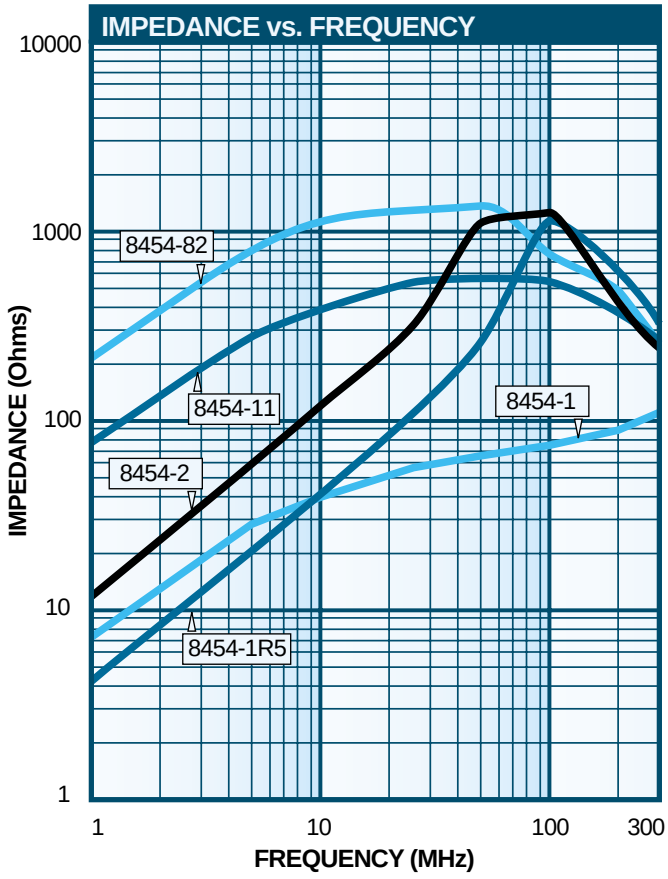
Operating Temperature Range

–55°C to +125°C

Packaging Tape & reel (8mm): 13" reel, 2000 pieces max.

LAND PATTERN DIMENSIONS





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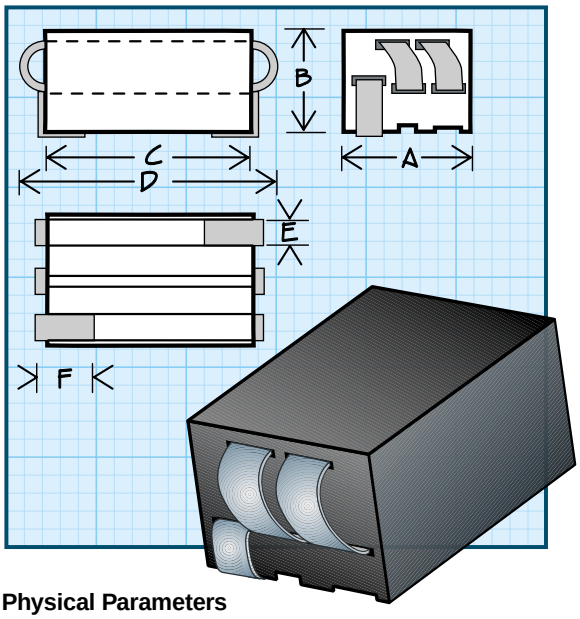
4/2005

Series SMB2.5R SMB2.5

RoHS Compliant

Traditional First Quality

Surface Mount Shield Beads



Physical Parameters

	Inches	Millimeters
A	0.285 ± 0.010	7.2 ± 0.25
B	0.185 ± 0.015	4.7 ± 0.38
C	0.355 ± 0.020	9.02 ± 0.51
D	0.460 Max.	11.68 Max.
E	0.050 ± 0.005	1.27 ± 0.13
F	0.075 Min.	1.9 Min.

Operating Temperature Range –40°C to +125°C

Impedances are measured on the HP 4291A Impedance Analyzer

Material High resistivity ferrite material eliminates the need to insulate windings

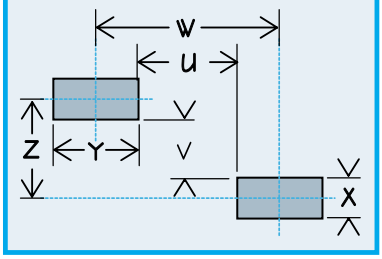
Lead Wire Plated copper

Idc Max. Based on a 35° C rise from 90°C ambient

Parts are available in tape and reel packaging

Packaging Tape & reel (24mm): 13" reel, 700 pieces max.; 7" reel not available

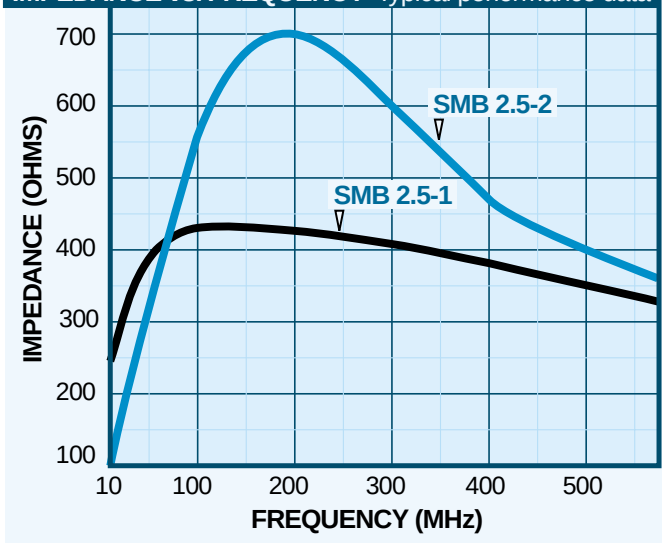
LAND PATTERN DIMENSIONS



Suggested Land Pattern Dimensions

	Inches	Millimeters
U	0.075	1.9
V	0.095	2.4
W	0.265	6.7
X	0.09	2.3
Y	0.19	4.8
Z	0.185	4.7

IMPEDANCE vs. FREQUENCY Typical performance data



For more detailed graphs, contact factory

Dash Number*	Turns	Minimum Impedance (Ohms) 10 MHz	100 MHz	150 MHz	220 MHz	Idc Max. (Amps)	DCR Max. (Ohms)
-1	2½	210	385	400	375	9.5	0.005
-2	2½	NA	490	635	650	9.5	0.005

***Complete part # must include series # PLUS the dash #**

For further surface finish information, refer to TECHNICAL section of this catalog.

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