

SERIES:

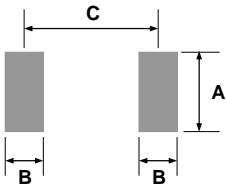
MGDH2



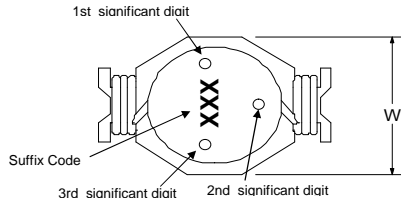
3003 9th Avenue SW
 PO Box 50
 Watertown, SD 57201
 Toll free: 888-978-2638
 Ph: 605-886-3326
 Fax: 605-886-8995



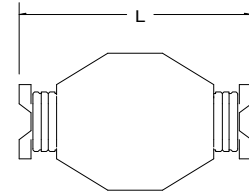
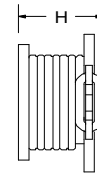
Shielded, Low Profile, Power Inductors



Suggested Land Pattern



Parts will be marked with Significant Digit Dots OR Suffix code



Series Number	Maximum Dimensions			Reference Dimensions			
	Units	L	W	H	A	B	C
MGDH2	inches	0.522"	0.392"	0.250"	0.160"	0.060"	0.400"
	[mm]	[13.26]	[9.96]	[6.35]	[4.06]	[1.52]	[10.16]

Features:

- High energy storage and low resistance
- Reliable surface mounting, flat top for pick and place.
- Smaller real estate than other common inductors.
- Robust temperature deflection to prevent damage during solder reflow.
- Tape and Reel mechanical specifications available upon request.
- Operating Temperature -40°C to +85°C.
- Highly resistive core for EMI suppression applications.

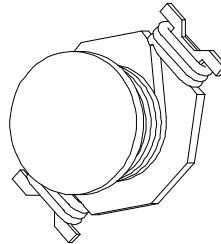
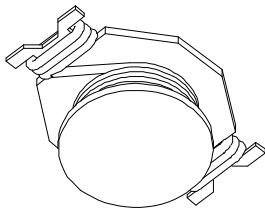
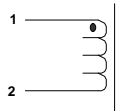
Notes:

- Inductance measured at 100kHz and 100mVrms.
- Isat is a maximum applied AC + DC current.
- Isat current is applied to produce a typical 10% drop in nominal inductance.
- Irms current is applied to produce a typical 40°C temperature rise.
- Tolerance suffix of M = ±20%.
- DCR is a maximum at 20°C.



Terminal Plating is Hot-dipped SnAgCu
 260°C Maximum reflow temperature per J-STD020

Schematic Diagram

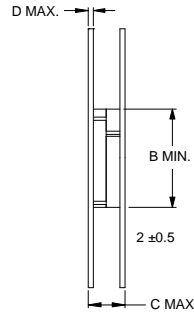
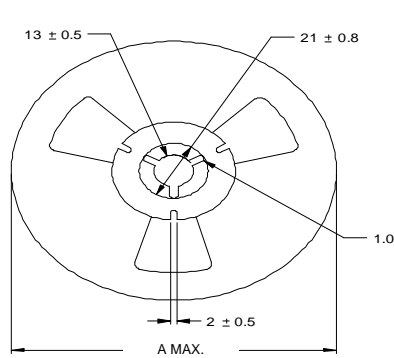


Contact CoEv for additional inductance values

Lead-free Part Number	L μH	MGDH2				Tolerance Suffix
		DCR W	Isat A	Irms		
MGDH2-00001	0.33	0.002	20.0	16.0	M	
	0.56					
MGDH2-00002	0.68	0.005	13.0	12.0	M	
	0.78					
MGDH2-00003	1.0	0.006	11.0	10.0	M	
	1.2					
MGDH2-00004	1.5	0.008	9.0	9.0	M	
MGDH2-00005	2.2	0.011	7.8	7.4	M	
MGDH2-00006	2.7	0.012	7.0	6.6	M	
MGDH2-00007	3.3	0.014	6.4	5.9	M	
	3.9					
MGDH2-00008	4.7	0.018	5.4	4.8	M	
	6.0					
MGDH2-00009	6.8	0.035	3.6	4.5	M	
	7.8					
MGDH2-00010	10	0.040	3.30	4.50	M	
MGDH2-00011	15	0.060	2.40	3.50	M	
MGDH2-00012	22	0.080	2.00	2.80	M	
MGDH2-00013	33	0.150	1.70	2.10	M	
MGDH2-00014	47	0.280	1.40	1.70	M	
MGDH2-00015	68	0.300	1.20	1.50	M	
MGDH2-00016	100	0.400	0.95	1.20	M	

Specifications subject to change

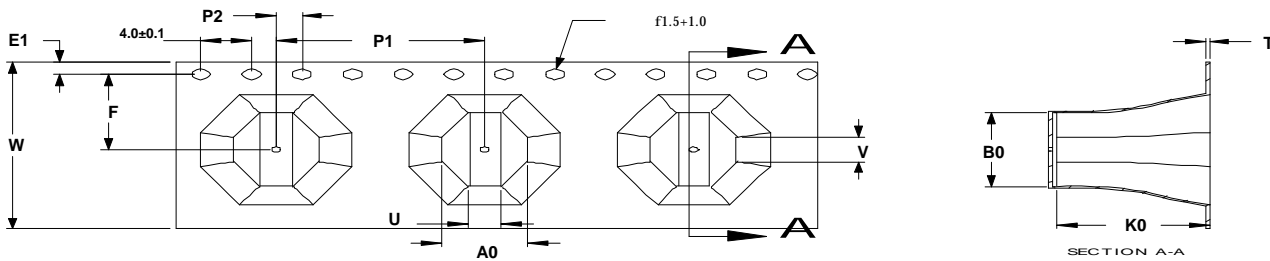
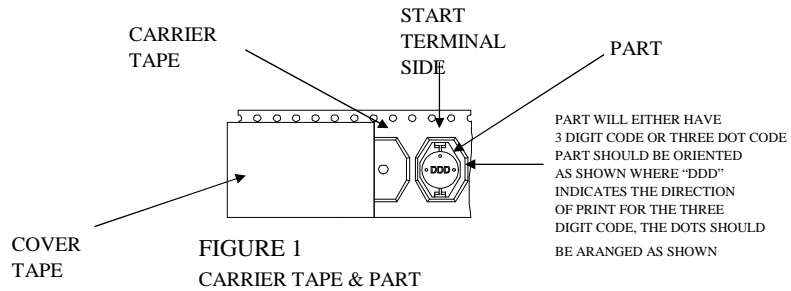
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Dimensions are in millimeters unless specified.

Series Number	Reel dimensions				Reel Qty	Carton (Box) Qty.	Packaging Specification	
	Units	A	B	C				D
MGDH2	in.	14.17"	3.94"	1.20"	0.098"	700	3500	90-0055
	[mm]	[360]	[100.0]	[30.4]	[2.50]			

PACKAGING NOTE: Only pressure sensitive cover tape is to be used.



Series	A0 ± 0.1	U ± 0.1	V ± 0.1	P1 ± 0.1	P2 ± 0.1	W ± 0.3	F ± 0.1	E1 ± 0.1	B0 ± 0.1	K0 ± 0.05	T ± 0.05
MGDH2	10.30	5.80	4.00	16.00	2.00	24.00	11.50	1.75	13.50	5.70	0.35



Customer Packaging Specifications
For Print Distribution to Customers

Series	Revision
MGDH2	A0
Sheet 2 of 7	

Item	Specification	Test Method/Condition
Environmental		
Static Humidity	After exposure part remains within specified electrical parameters for L, Q and DCR.	Precondition at 25°C for 60 minutes. Expose parts to an environment of +40°C with 90 to 95% R.H. for 240 hours.
Storage Life	After exposure part remains within specified electrical parameters for L, Q and DCR.	Subject parts to an environment of 85°C 85% R.H. for 168 hours. After exposure allow parts to dry for 4 hours before measurements are taken.
Temperature Cycle	After exposure part remains within specified electrical parameters for L, Q and DCR.	10 cycles (Air to Air) 1 cycle shall consist of: 30 minutes exposure to +85°C 30 minutes exposure to -40°C Allow 20 minutes transition between extremes.
Temperature Shock	After exposure part remains within specified electrical parameters for L, Q and DCR.	10 cycles (Air to Air) 1 cycle shall consist of: 30 minutes exposure to -55°C 30 minutes exposure to +125°C 15 seconds maximum transition between temperatures
General		
Storage Temperature Range	-40°C to +85°C	
Operating Temperature Range	-40°C to +85°C	
Flammability	IEC 695-2-2	Withstands needle-flame test
Other		
Vibration	After exposure part remains within specified electrical parameters for L, Q and DCR.	1 cycle of 30 minutes of the following: 5 - 7 Hz constant displacement of 0.75 inches, 5 minutes 7 - 30 Hz constant acceleration of 1.5 Gs, 10 minutes 31 - 50 Hz constant displacement of 0.33 inches, 5 minutes 50 - 500 Hz constant acceleration of 1.2 Gs, 10 minutes
Mechanical Shock	After exposure part remains within specified electrical parameters for L, Q and DCR.	MGDH1 Series - 2000 Gs per axis, 2 directions MGDH2 Series - 2000 Gs per axis, 2 directions MGDH3 Series - 2000 Gs per axis, 2 directions
Solderability	Wetting shall cover 90% minimum of each termination	Dip pads in RMA flux, 63/37 solder (Sn/Pb) at 232°C for 5 seconds ±2 seconds.
Component Adhesion (Push Test)	Component shall withstand 6 lb. push force minimum without delaminating from mounting surface.	Apply and measure force with a digital force gauge set.
Resistance to Solvent		Withstands 6 minutes of alcohol. Withstands 3 minutes forced spray Freon TMS
Chemical		
Ionic Contamination	Conductivity: pH: Chlorides: Sodium: Potassium:	11 µOhms/cm maximum 5.5 to 9 65 ppm maximum 20 ppm maximum 10 ppm maximum



For Print Distribution to Customers	Series	Revision
	MGDH2	A0
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