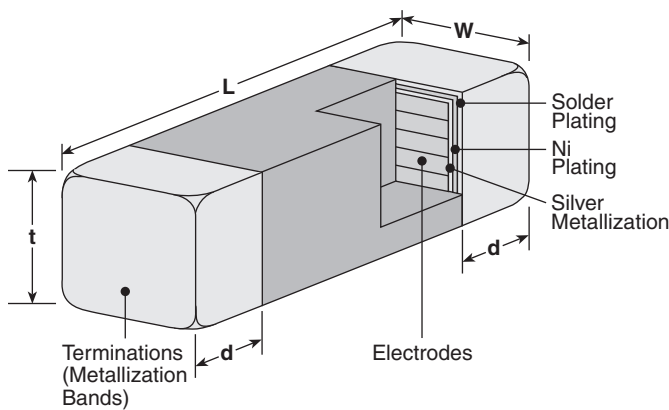


**features**

- Monolithic structure provides high reliability in a wide temperature and humidity range
- High quality ceramic material and unique manufacturing process provides high Q at high frequency
- Standard EIA packages: 1E, 1J
- Nickel barrier with solder overcoat for excellent solderability
- Marking: Brown body color with no marking (1E)  
White body color with with black stripe and no marking (1J)
- Products with lead-free terminations meet EU RoHS requirements

**dimensions and construction**



Size Code	Dimensions inches (mm)			
	L	W	t	d
<b>1E</b> (0402)	.039±.004 (1.0±0.1)	.02±.004 (0.5±0.1)	.02±.004 (0.5±0.1)	.01±.004 (0.25±0.1)
<b>1J</b> (0603)	.063±.006 (1.6±0.15)	.031±.006 (0.8±0.15)	.031±.006 (0.8±0.15)	.014±.006 (0.36±0.15)

**ordering information**

New Part #	<b>MHL</b>	<b>1E</b>	<b>C</b>	<b>T</b>	<b>TE</b>	<b>3N9</b>	<b>S</b>
	Type	Size Code	Material	Termination Material	Packaging	Nominal Inductance	Tolerance
		1E 1J	Permeability Code: C T	T: Sn	TP: 7" paper tape 2 mm pitch (1E only - 10,000 pieces/reel) TD: 7" paper tape (1J - 4,000 pieces/reel)	3N9 = 3.9nH R10 = 100nH	S: ±0.3nH J: ±5%

For further information on packaging, please refer to Appendix A.

applications and ratings

Inductors

Part Designation	Inductance L (nH)	Inductance Tolerance	Q			Self Resonant Frequency Typical (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)	Operating Temperature Range			
			Minimum (100MHz)	Typical (100MHz)	Typical (800MHz)							
MHL1ECTTP1N0*	1.0	S: ±0.3nH	8	11	37	10000	300	-55°C to +125°C				
MHL1ECTTP1N2*	1.2				36				6000	0.12		
MHL1ECTTP1N5*	1.5					34					6000	0.13
MHL1ECTTP1N8*	1.8				0.14							
MHL1ECTTP2N2*	2.2				0.16							
MHL1ECTTP2N7*	2.7				0.17							
MHL1ECTTP3N3*	3.3				0.19							
MHL1ECTTP3N9*	3.9				32	4000			0.22			
MHL1ECTTP4N7*	4.7								0.24			
MHL1ECTTP5N6*	5.6				J: ±5%	10			11	0.27	200	-55°C to +125°C
MHL1ECTTP6N8*	6.8									3900		
MHL1ECTTP8N2*	8.2	3500	0.37									
MHL1ECTTP10N*	10			3200			0.42					
MHL1ECTTP12N*	12	2600	0.50									
MHL1ECTTP15N*	15			2300			0.55					
MHL1ECTTP18N*	18	2000	0.65									
MHL1ECTTP22N*	22			1600			0.8					
MHL1ECTTP27N*	27	1400	0.9									
MHL1ECTTP33N*	33			1200			1.0					
MHL1ECTTP39N*	39	1100	1.2									
MHL1ECTTP47N*	47			900	1.3							
MHL1ECTTP56N*	56	750	1.4									
MHL1ECTTP68N*	68			19	1.4							
MHL1ECTTP82N*	82	16	1.5									
MHL1ECTTPR10*	100			10	600	1.6						
MHL1ECTTPR12*	120	—	100									
MHL1JCTTD1N5*	1.5	S: ±0.3nH	8	14	6000	0.10	1000	-55°C to +125°C				
MHL1JCTTD1N8*	1.8								10	4000	0.13	
MHL1JCTTD2N2*	2.2											0.15
MHL1JCTTD2N7*	2.7								0.20			
MHL1JCTTD3N3*	3.3									0.23		
MHL1JCTTD3N9*	3.9								0.25			
MHL1JCTTD4N7*	4.7	46	4000	0.28								
MHL1JCTTD5N6*	5.6				3500	0.30						
MHL1JCTTD6N8*	6.8	3200	0.35									
MHL1JCTTD8N2*	8.2			2600	0.40							
MHL1JCTTD10N*	10	2300	0.45									
MHL1JCTTD12N*	12			2000	0.50							
MHL1JCTTD15N*	15	1600	0.55									
MHL1JCTTD18N*	18			1400	0.60							
MHL1JCTTD22N*	22	1200	0.60									
MHL1JCTTD27N*	27			18	500							
MHL1JCTTD27N*	27	15	500									
MHL1JCTTD33N*	33											

\*Add tolerance character (S, J)

For complete environmental specifications, please refer to pages 208-209.

**applications and ratings (continued)**

Part Designation	Inductance L (nH)	Inductance Tolerance	Q			Self Resonant Frequency Typical (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)	Operating Temperature Range	
			Minimum (100MHz)	Typical (100MHz)	Typical (800MHz)					
MHL1JCTTD39N*	39	J: ±5%	12	15	46	1100	0.65	500	-55°C to +125°C	
MHL1JTTTD39N*	39			17						
MHL1JCTTD47N*	47			15	39	900	900			0.70
MHL1JCTTD56N*	56				37					0.75
MHL1JCTTD68N*	68				36	700	0.80			400
MHL1JCTTD82N*	82			29	600	0.85	300			
MHL1JCTTDR10*	100		16	500	0.90					
MHL1JCTTDR12*	120		8	13	—	1.0				
MHL1JCTTDR15*	150					1.2				
MHL1JCTTDR18*	180					1.3				
MHL1JCTTDR22*	220					1.5				

\*Add tolerance character (S, J)

For complete environmental specifications, please refer to pages 208-209.