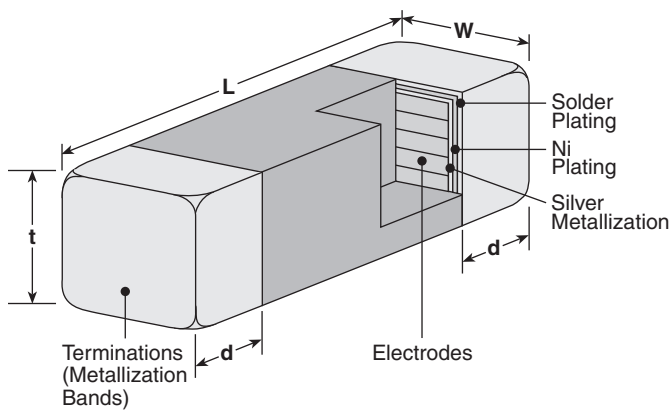


**features**

- 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				
MHL1ECTTP1N8*	1.8				34				6000	0.14
MHL1ECTTP2N2*	2.2					34				6000
MHL1ECTTP2N7*	2.7				34				6000	
MHL1ECTTP3N3*	3.3					32				4000
MHL1ECTTP3N9*	3.9				32				4000	
MHL1ECTTP4N7*	4.7					32				4000
MHL1ECTTP5N6*	5.6				32				4000	
MHL1ECTTP6N8*	6.8					J: ±5%				8
MHL1ECTTP8N2*	8.2	31	3200	0.32						
MHL1ECTTP8N2*	8.2			31	3200		0.37			
MHL1ECTTP10N*	10	31	2600				0.42			
MHL1ECTTP12N*	12			31	2600		0.50			
MHL1ECTTP15N*	15	30	2300				0.55			
MHL1ECTTP18N*	18			30	2000		0.65			
MHL1ECTTP22N*	22	30	1600				0.8			
MHL1ECTTP27N*	27			28	1400		0.9			
MHL1ECTTP33N*	33	26	1200				1.0			
MHL1ECTTP39N*	39			24	1100		1.2			
MHL1ECTTP47N*	47	23	900			1.3				
MHL1ECTTP56N*	56			21	750	1.4				
MHL1ECTTP68N*	68	19	750			1.4				
MHL1ECTTP82N*	82			16	600	1.6				
MHL1ECTTPR10*	100	16	600			1.6				
MHL1ECTTPR12*	120			16	600	1.6				
MHL1JCTTD1N5*	1.5	S: ±0.3nH	8			14	6000	1000	-55°C to +125°C	
MHL1JCTTD1N8*	1.8			10	4000					0.10
MHL1JCTTD2N2*	2.2									
MHL1JCTTD2N7*	2.7			10	4000					0.15
MHL1JCTTD3N3*	3.3									10
MHL1JCTTD3N9*	3.9			10	4000					
MHL1JCTTD4N7*	4.7									10
MHL1JCTTD5N6*	5.6			10	4000					
MHL1JCTTD6N8*	6.8									10
MHL1JCTTD8N2*	8.2			10	4000					
MHL1JCTTD10N*	10									15
MHL1JCTTD12N*	12	15	2300	0.45						
MHL1JCTTD15N*	15			15	2000	0.50				
MHL1JCTTD18N*	18	15	1600			0.55				
MHL1JCTTD22N*	22			15	1400	0.60				
MHL1JCTTD27N*	27	15	1200			0.60				
MHL1JCTTD27N*	27			15	1200	0.60				
MHL1JCTTD33N*	33	15	1200			0.60				

\*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 ( $\Omega$ )	Allowable DC Current Maximum (mA)	Operating Temperature Range	
			Minimum (100MHz)	Typical (100MHz)	Typical (800MHz)					
MHL1JCTTD39N*	39	J: $\pm 5\%$	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			8	13	29	600			0.85
MHL1JCTTDR10*	100		16			600	0.90			
MHL1JCTTDR12*	120		—			400	500	1.0		
MHL1JCTTDR15*	150						500	1.2		
MHL1JCTTDR18*	180						500	1.3		
MHL1JCTTDR22*	220				400	1.5				

\*Add tolerance character (S, J)

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