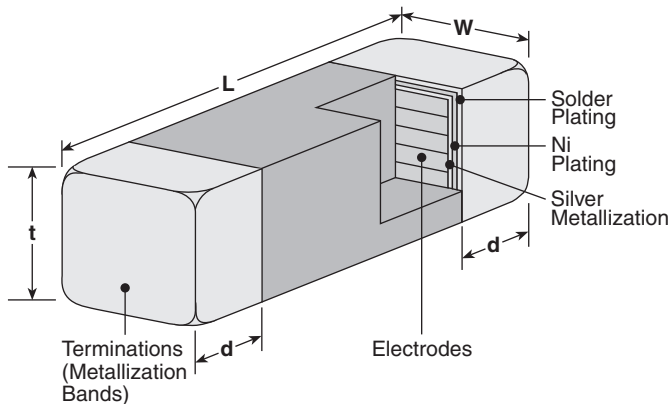


features

- 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
1E (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)
1J (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 #	MHL	1E	C	T	TE	3N9	S
	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	34	
MHL1ECTTP1N5*	1.5					34					6000
MHL1ECTTP1N8*	1.8				34				6000	34	
MHL1ECTTP2N2*	2.2					34					6000
MHL1ECTTP2N7*	2.7				34				6000	34	
MHL1ECTTP3N3*	3.3					34					6000
MHL1ECTTP3N9*	3.9				32				4000	32	
MHL1ECTTP4N7*	4.7					32					4000
MHL1ECTTP5N6*	5.6				32				4000	32	
MHL1ECTTP6N8*	6.8					J: ±5%					8
MHL1ECTTP8N2*	8.2	31	3200	31	0.32						
MHL1ECTTP8N2*	8.2				31		3200	31	0.37		
MHL1ECTTP10N*	10	31	2600	31					0.42		
MHL1ECTTP12N*	12				31		2600	31	0.50		
MHL1ECTTP15N*	15	30	2300	30					0.55		
MHL1ECTTP18N*	18				30		2000	30	0.65		
MHL1ECTTP22N*	22	30	1600	30					0.8		
MHL1ECTTP27N*	27				28		1400	28	0.9		
MHL1ECTTP33N*	33	26	1200	26					1.0		
MHL1ECTTP39N*	39				24		1100	24	1.2		
MHL1ECTTP47N*	47	23	900	23		1.3					
MHL1ECTTP56N*	56				21	750	21	1.4			
MHL1ECTTP68N*	68	19	750	19				1.4			
MHL1ECTTP82N*	82				16	600	16	1.6			
MHL1ECTTPR10*	100	10	600	10				1.6			
MHL1ECTTPR12*	120				10	600	10	1.6			
MHL1JCTTD1N5*	1.5	S: ±0.3nH	8	14				6000	1000	-55°C to +125°C	
MHL1JCTTD1N8*	1.8				14	6000	14				0.10
MHL1JCTTD2N2*	2.2										14
MHL1JCTTD2N7*	2.7				14	6000	14				
MHL1JCTTD3N3*	3.3										10
MHL1JCTTD3N9*	3.9				10	4000	10				
MHL1JCTTD4N7*	4.7										10
MHL1JCTTD5N6*	5.6				10	4000	10				
MHL1JCTTD6N8*	6.8										10
MHL1JCTTD8N2*	8.2				15	2600	15				
MHL1JCTTD10N*	10										15
MHL1JCTTD12N*	12	15	2000	15	0.45						
MHL1JCTTD15N*	15				12	1600	12	0.50			
MHL1JCTTD18N*	18	12	1400	12				0.55			
MHL1JCTTD22N*	22				18	1200	18	0.60			
MHL1JCTTD27N*	27	15	1200	15				0.60			
MHL1JTTTD27N*	27				15	1200	15	0.60			
MHL1JCTTD33N*	33	15	1200	15				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 (Ω)	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		500			—	400	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.