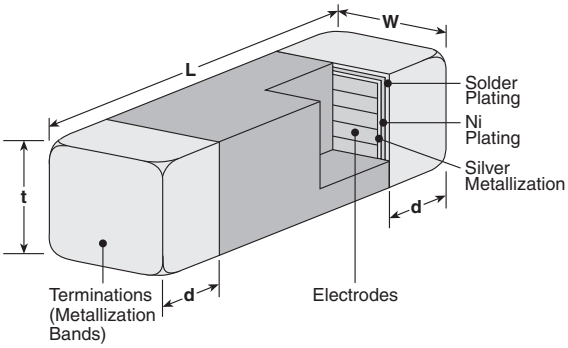
EU RoHS COMPLIANT

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
- 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

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	42	10000	0.12	300	-55°C to +125°C
MHL1ECTTP1N2*	1.2								
MHL1ECTTP1N5*	1.5				40	8000	0.13		
MHL1ECTTP1N8*	1.8					6000	0.14		
MHL1ECTTP2N2*	2.2				35		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						0.27		

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applications and ratings (continued)

	Part Designation	Inductance L (nH)	Inductance Tolerance	Q Minimum (100MHz)	Q Typical (100MHz)	Q Typical (800MHz)	Self Resonant Frequency Typical (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)	Operating Temperature Range
	MHL1ECTTP6N8*	6.8	J: ±5%	8	11	32	3900	0.32	300	-55°C to +125°C
	MHL1ECTTP8N2*	8.2					3500	0.37		
	MHL1ECTTP10N*	10				31	3200	0.42		
	MHL1ECTTP12N*	12					2600	0.50		
	MHL1ECTTP15N*	15				30	2300	0.55		
	MHL1ECTTP18N*	18					2000	0.65		
	MHL1ECTTP22N*	22					1600	0.8		
	MHL1ECTTP27N*	27				28	1400	0.9		
	MHL1ECTTP33N*	33				26	1200	1.0	200	
	MHL1ECTTP39N*	39				24	1100	1.2		
	MHL1ECTTP47N*	47				23	900	1.3		
	MHL1ECTTP56N*	56				21	750	1.4		
	MHL1ECTTP68N*	68			10	19			180	
	MHL1ECTTP82N*	82				16	600	1.6	150	
	MHL1ECTTPR10*	100				—			100	
NEW	MHL1ECTTPR12*	120				—				
	MHL1JCTTD1N5*	1.5	S: ±0.3nH	8	14	46	6000	0.10	1000	-55°C to +125°C
	MHL1JCTTD1N8*	1.8								
	MHL1JCTTD2N2*	2.2								
	MHL1JCTTD2N7*	2.7								
	MHL1JCTTD3N3*	3.3		10				0.13		
	MHL1JCTTD3N9*	3.9						0.15		
	MHL1JCTTD4N7*	4.7					4000	0.20		
	MHL1JCTTD5N6*	5.6						0.23	600	
	MHL1JCTTD6N8*	6.8	J: ±5%		15			0.25		
	MHL1JCTTD8N2*	8.2		12			3500	0.28		
	MHL1JCTTD10N*	10					3200	0.30		
	MHL1JCTTD12N*	12					2600	0.35		
	MHL1JCTTD15N*	15					2300	0.40		
	MHL1JCTTD18N*	18					2000	0.45		
	MHL1JCTTD22N*	22			18		1600	0.50		
	MHL1JCTTD27N*	27					1400	0.55		
	MHL1JCTTD33N*	33			17		1200	0.60		
	MHL1JCTTD39N*	39					1100	0.65	500	
	MHL1JCTTD47N*	47			15	39	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		0.90		
	MHL1JCTTDR12*	120		8	13		500	1.0		
	MHL1JCTTDR15*	150				—		1.2		
	MHL1JCTTDR18*	180					400	1.3		
	MHL1JCTTDR22*	220						1.5		

*Add tolerance character (S, J)

For complete environmental specifications, please refer to www.koaspeer.com

inductors