

Choke Coils

Series : **Pin terminal**

Type : **09D, 11D, 12D, 16B, 18B, 10E, 12E, 15E, 18E**

Pin terminal inductors featuring small size and high performance

Features

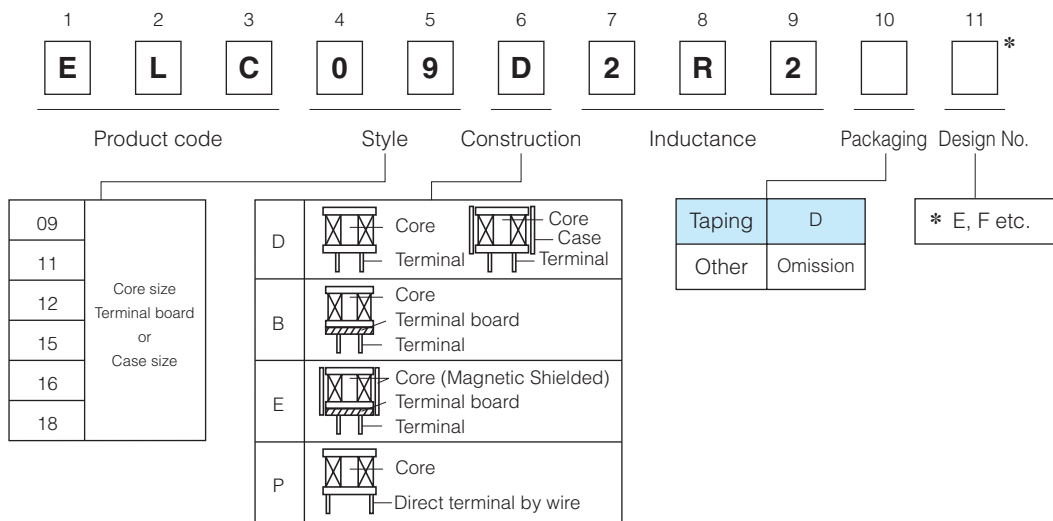
- High - μ and High Bm cores
- Wide inductor range
- Magnetic shield type (E Type)
- RoHS compliant

Recommended Applications

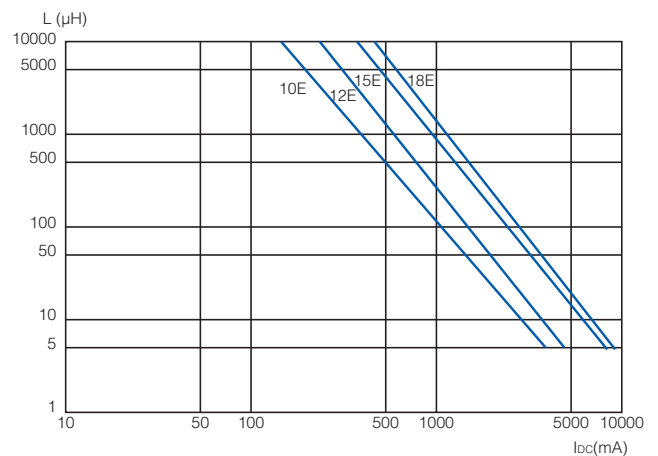
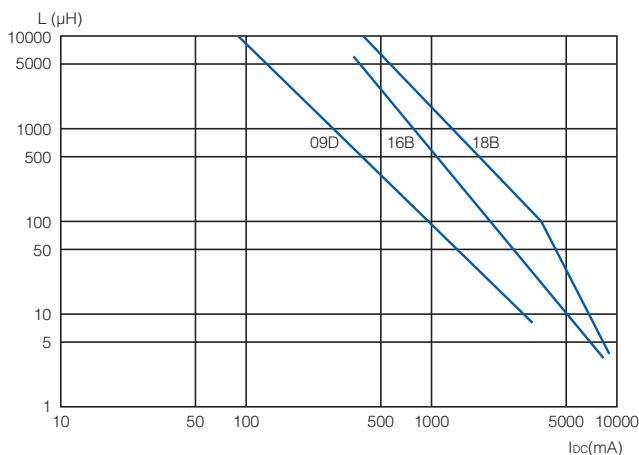
- Appliance, Office automation equipment, Amusement machine, Power circuit for electric device






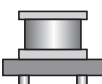




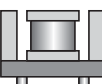
Explanation of Part Numbers



Available I-L Characteristics



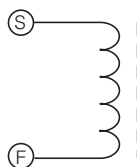
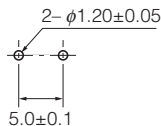
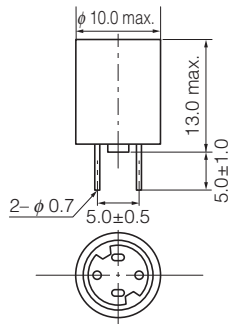
Performance Characteristics by Series

	Type	Construction	External Dimensions D×H (mm)	Inductance (μH)						Current I _{DC} (A)
				0.1	1.0	10	100	1000	10000	
Regular	09D *		φ9.5×8.9 (with case)			2.2			10000	0.08 to 3.5
	11D *		φ11.5×13.9 (with case)			2.2			10000	0.16 to 5.3
	12D		φ12.5×16.5				100		10000	0.27 to 1.9
	16B		φ16.0×23.0			3.3			10000	0.26 to 8.5
	18B		φ20.0×27.0			3.3			10000	0.36 to 8.5
Shield	10E-L		φ10.0×13.0			3.9			8200	0.10 to 2.9
	12E-L		φ13.0×18.5			4.7			10000	0.13 to 4.4
	15E-L		φ16.0×22.0 (3 pin terminal)			5.6			10000	0.30 to 5.4
	18E-L		φ19.0×25.1 (4 pin terminal)			5.6			10000	0.33 to 5.9

* : Taping Available

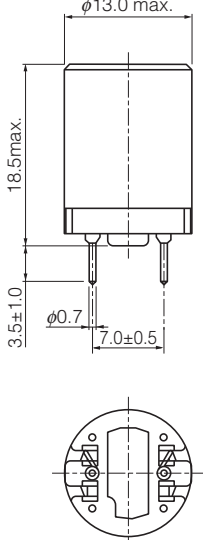
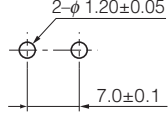
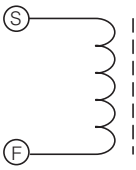
Examples Type 10E-L

	Part No.	Inductance (μH)	Tolerance (%)	Test Freq. (kHz)	R _{DC} (Ω) [at 20 °C] (Tol.±20 %)	I _{DC} * [at 20 °C] (A)max.
[Dimensions in mm] (not to scale)	ELC10E3R9L	3.9	±20	10	0.024	2.90
	ELC10E4R7L	4.7			0.027	2.80
	ELC10E5R6L	5.6			0.030	2.70
	ELC10E6R8L	6.8			0.032	2.60
	ELC10E8R2L	8.2			0.035	2.50
	ELC10E100L	10.0			0.038	2.40
	ELC10E120L	12.0			0.040	2.30
	ELC10E150L	15.0			0.046	2.20
	ELC10E180L	18.0			0.049	2.10
	ELC10E220L	22.0			±15	0.056
ELC10E270L	27.0	0.062	1.90			
ELC10E330L	33.0	0.068	1.80			
ELC10E390L	39.0	0.074	1.70			
ELC10E470L	47.0	0.098	1.50			
ELC10E560L	56.0	0.120	1.30			
ELC10E680L	68.0	0.150	1.20			
ELC10E820L	82.0	0.190	1.00			
ELC10E101L	100.0	0.210	0.96			
ELC10E121L	120.0	0.240	0.92			
Recommended PWB piercing plan	ELC10E151L	150.0	±10		0.260	0.83
	ELC10E181L	180.0			0.290	0.74
	ELC10E221L	220.0			0.410	0.64
	ELC10E271L	270.0			0.590	0.54
	ELC10E331L	330.0			0.660	0.52
	ELC10E391L	390.0			0.720	0.50
	ELC10E471L	470.0			0.800	0.45
	ELC10E561L	560.0			1.100	0.41
	ELC10E681L	680.0			1.200	0.37
	ELC10E821L	820.0			1.600	0.33
Connection Schematic	ELC10E102L	1000.0			1.800	0.31
	ELC10E122L	1200.0		2.000	0.29	
	ELC10E152L	1500.0		2.800	0.26	
	ELC10E182L	1800.0		3.200	0.23	
	ELC10E222L	2200.0		3.600	0.20	
	ELC10E272L	2700.0		5.200	0.18	
	ELC10E332L	3300.0		5.900	0.17	
	ELC10E392L	3900.0		6.500	0.16	
	ELC10E472L	4700.0		9.600	0.14	
	ELC10E562L	5600.0		10.800	0.12	
ELC10E682L	6800.0	11.900	0.11			
ELC10E822L	8200.0	13.200	0.10			



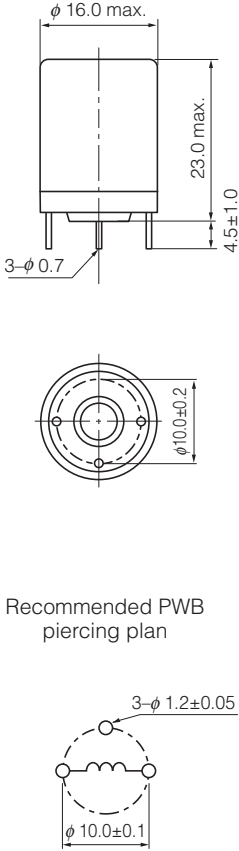
* Allowable DC Current: Smaller current value either when the inductance is -10 % or when the case temperature has risen 45 °C.

Examples Type 12E-L

	Part No.	Inductance (μH)	Tolerance (%)	Test Freq. (kHz)	R _{DC} (Ω) [at 20 °C] (Tol.±20 %)	I _{DC} * [at 20 °C] (A)max.
<p>[Dimensions in mm] (not to scale)</p>  <p>Recommended PWB piercing plan</p>  <p>Connection Schematic</p> 	ELC12E4R7L	4.7	±25	10	0.014	4.40
	ELC12E5R6L	5.6			0.016	4.10
	ELC12E6R8L	6.8			0.018	3.90
	ELC12E8R2L	8.2			0.020	3.70
	ELC12E100L	10.0	±20		0.023	3.50
	ELC12E120L	12.0			0.024	3.30
	ELC12E150L	15.0			0.028	3.20
	ELC12E180L	18.0			0.030	3.10
	ELC12E220L	22.0	±10		0.033	2.80
	ELC12E270L	27.0			0.037	2.50
	ELC12E330L	33.0			0.041	2.40
	ELC12E390L	39.0			0.044	2.20
	ELC12E470L	47.0			0.048	2.00
	ELC12E560L	56.0			0.053	1.80
	ELC12E680L	68.0			0.073	1.70
	ELC12E820L	82.0			0.098	1.40
	ELC12E101L	100.0			0.140	1.30
	ELC12E121L	120.0			0.160	1.20
	ELC12E151L	150.0	0.180		1.10	
	ELC12E181L	180.0	0.200		1.00	
	ELC12E221L	220.0	0.220		0.91	
	ELC12E271L	270.0	0.320		0.83	
	ELC12E331L	330.0	0.360		0.79	
	ELC12E391L	390.0	0.400		0.70	
	ELC12E471L	470.0	0.440		0.64	
	ELC12E561L	560.0	0.490		0.57	
	ELC12E681L	680.0	0.610		0.52	
	ELC12E821L	820.0	0.760		0.47	
	ELC12E102L	1000.0	1.100		0.43	
	ELC12E122L	1200.0	1.200		0.40	
	ELC12E152L	1500.0	1.400		0.36	
	ELC12E182L	1800.0	1.900		0.32	
	ELC12E222L	2200.0	2.500		0.30	
ELC12E272L	2700.0	3.500	0.26			
ELC12E332L	3300.0	3.900	0.24			
ELC12E392L	3900.0	4.300	0.22			
ELC12E472L	4700.0	6.000	0.20			
ELC12E562L	5600.0	6.600	0.17			
ELC12E682L	6800.0	9.900	0.15			
ELC12E822L	8200.0	10.900	0.14			
ELC12E103L	10000.0	12.200	0.13			

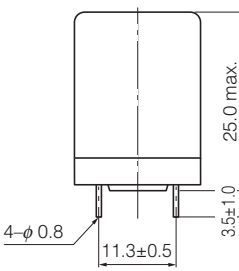
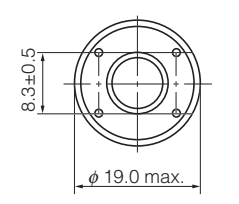
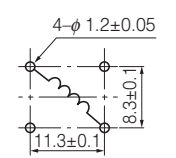
* Allowable DC Current: Smaller current value either when the inductance is -10 % or when the case temperature has risen 45 °C.

Examples Type 15E-L

	Part No.	Inductance (μH)	Tolerance (%)	Test Freq. (kHz)	R _{DC} (Ω) [at 20 °C] (Tol. ±20 %)	I _{DC} * [at 20 °C] (A)max.
<p>[Dimensions in mm] (not to scale)</p>  <p>Recommended PWB piercing plan</p>	ELC15E5R6L	5.6	±20	10	0.012	6.80
	ELC15E6R8L	6.8			0.013	6.30
	ELC15E8R2L	8.2			0.016	5.80
	ELC15E100L	10			0.018	5.40
	ELC15E120L	12			0.019	5.10
	ELC15E150L	15			0.022	4.70
	ELC15E180L	18			0.024	4.50
	ELC15E220L	22			0.027	4.30
	ELC15E270L	27			0.029	4.10
	ELC15E330L	33			0.032	4.00
	ELC15E390L	39			0.033	3.80
	ELC15E470L	47			0.037	3.70
	ELC15E560L	56			0.039	3.60
	ELC15E680L	68			0.045	3.50
	ELC15E820L	82	0.048		3.20	
	ELC15E101L	100	0.053		3.00	
	ELC15E121L	120	0.059		2.60	
	ELC15E151L	150	0.077		2.40	
	ELC15E181L	180	0.100		2.30	
	ELC15E221L	220	0.140		2.00	
	ELC15E271L	270	0.150		1.70	
	ELC15E331L	330	0.170		1.60	
	ELC15E391L	390	0.190		1.50	
	ELC15E471L	470	0.210		1.30	
	ELC15E561L	560	0.280		1.20	
	ELC15E681L	680	0.310		1.10	
	ELC15E821L	820	0.440		1.00	
	ELC15E102L	1000	0.490		0.95	
	ELC15E122L	1200	0.540		0.85	
	ELC15E152L	1500	0.710		0.80	
	ELC15E182L	1800	0.870		0.75	
	ELC15E222L	2200	1.100		0.63	
	ELC15E272L	2700	1.400		0.60	
	ELC15E332L	3300	1.600		0.53	
ELC15E392L	3900	1.700	0.47			
ELC15E472L	4700	2.400	0.43			
ELC15E562L	5600	2.600	0.39			
ELC15E682L	6800	2.900	0.36			
ELC15E822L	8200	3.500	0.34			
ELC15E103L	10000	4.600	0.30			
			±10			

* Allowable DC Current: Smaller current value either when the inductance is -10 % or when the case temperature has risen 45 °C.

Examples Type 18E-L

	Part No.	Inductance (μH)	Tolerance (%)	Test Freq. (kHz)	R _{DC} (Ω) [at 20 °C] (Tol. ±20 %)	I _{DC} * [at 20 °C] (A)max.
<p>[Dimensions in mm] (not to scale)</p>   <p>Recommended PWB piercing plan</p>  <p>(Top View)</p>	ELC18E5R6L	5.6	±20	10	0.011	6.70
	ELC18E6R8L	6.8			0.013	6.50
	ELC18E8R2L	8.2			0.013	6.20
	ELC18E100L	10			0.014	5.90
	ELC18E120L	12			0.016	5.60
	ELC18E150L	15			0.017	5.40
	ELC18E180L	18			0.019	5.20
	ELC18E220L	22			0.022	5.00
	ELC18E270L	27			0.023	4.80
	ELC18E330L	33			0.026	4.60
	ELC18E390L	39	0.028		4.50	
	ELC18E470L	47	0.030		4.10	
	ELC18E560L	56	0.031		3.80	
	ELC18E680L	68	0.036		3.60	
	ELC18E820L	82	0.040		3.50	
	ELC18E101L	100	0.044		3.00	
	ELC18E121L	120	0.047		2.80	
	ELC18E151L	150	0.061		2.60	
	ELC18E181L	180	0.067		2.50	
	ELC18E221L	220	0.076		2.10	
	ELC18E271L	270	0.083		2.00	
	ELC18E331L	330	0.110		1.90	
	ELC18E391L	390	0.120		1.80	
	ELC18E471L	470	0.150		1.50	
	ELC18E561L	560	0.170		1.40	
	ELC18E681L	680	0.190		1.20	
	ELC18E821L	820	0.210		1.10	
	ELC18E102L	1000	0.280		1.00	
	ELC18E122L	1200	0.360		0.95	
	ELC18E152L	1500	0.510		0.90	
	ELC18E182L	1800	0.570		0.80	
	ELC18E222L	2200	0.630		0.73	
	ELC18E272L	2700	0.890		0.65	
	ELC18E332L	3300	1.000		0.60	
ELC18E392L	3900	1.100	0.50			
ELC18E472L	4700	1.400	0.48			
ELC18E562L	5600	1.600	0.46			
ELC18E682L	6800	2.200	0.39			
ELC18E822L	8200	2.400	0.35			
ELC18E103L	10000	2.700	0.33			
			±10			

* Allowable DC Current: Smaller current value either when the inductance is -10 % or when the case temperature has risen 45 °C.

