

FIXED INDUCTOR

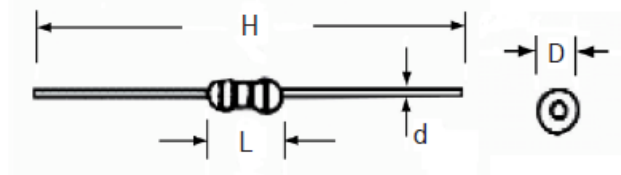
EC TYPE

CHARACTERISTICS

- Rated DC Current : It is either the inductance is 10% lower than its initial value in D.C. saturation characteristics or temperature raise becomes $\Delta T=20^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$), whichever is lower.
- Operating temperature ranges : -20 to $+80^{\circ}\text{C}$.
- Storage temperature ranges : -40 to $+80^{\circ}\text{C}$.
- Dielectric with standing voltage : 250V AC r.m.s.

FEATURES

- Conformal coated inductors.
- Special magnetic core structure contributes to high Q and self-resonant frequencies (S.R.F.).
- Treated with epoxy resin coating makes it high reliability.
- Wide inductance range.
- Ideal for auto insertion.



DIMENSIONS

Unit : mm

TYPE	L (MAX.)	D (MAX.)	H	d
EC22 (0204)	4.0	2.8	62 ± 2.0	0.50 ± 0.05
EC24 (0307)	7.7	3.0	62 ± 2.0	0.55 ± 0.05
EC36 (0410)	10.5	4.0	62 ± 2.0	0.65 ± 0.05
EC38 (0412)	12.7	4.2	62 ± 2.0	0.65 ± 0.05
EC46 (0510)	12.0	5.0	62 ± 2.0	0.65 ± 0.05

RATINGS

TYPE	INDUCTANCE RANGE	RATED DC CURRENT
EC22 (0204)	0.1uH – 1.0MH	700mA – 20mA
EC24 (0307)	0.1uH – 1.0MH	700mA – 60mA
EC36 (0410)	0.1uH – 1.0MH	900mA – 100mA
EC38 (0412)	1.0uH – 10.0MH	3.0A – 30mA
EC46 (0510)	1.2MH – 33.0MH	110mA – 20mA

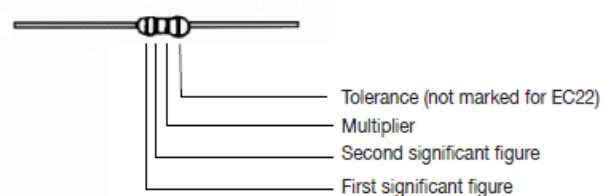
THE NOMINAL INDUCTANCE IS MARKED BY A COLOR CODE AS LISTED IN TABLE BELOW

COLOR	NOMINAL INDUCTANCE (uH)			
	FIRST FIGURE	SECOND FIGURE	MAGNIFICATION	TOLERANCE
Black	0		1	$\pm 20\%$
Brown	1		10	
Red	2		100	
Orange	3		1000	
Yellow	4		–	
Green	5		–	
Blue	6		–	
Purple	7		–	
Gray	8		–	
White	9		–	
Gold	–		0.1	$\pm 5\%$
Silver	–		0.01	$\pm 10\%$

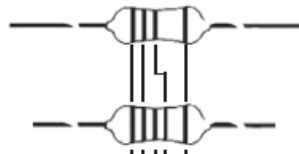
TEST INSTRUMENTS

L & Q : HP 4285A Precision Q Meter
 DCR : Milli-Ohm Meter
 SRF : HM9461 L – SRF Meter

COLOR CODING



E6, E12, E24
E24, E96



COLOR	1ST BAND	2ND BAND	3RD BAND	MULTIPLIER	TOLERANCE
BLACK	0	0	0	10 ⁰	
BROWN	1	1	1	10 ¹	F (±1%)
RED	2	2	2	10 ²	G (±2%)
ORANGE	3	3	3	10 ³	
YELLOW	4	4	4	10 ⁴	
GREEN	5	5	5	10 ⁵	D (±0.5%)
BLUE	6	6	6	10 ⁶	C (±0.25%)
VIOLET	7	7	7	10 ⁷	B (±0.1%)
GRAY	8	8	8		A (±0.05%)
WHITE	9	9	9		AA (±0.01%)
GOLD				10 ⁻¹	J (±5%)
SILVER				10 ⁻²	K (±10%)
PLAIN				10 ⁻³	M (±20%)

RESISTANCE TOLERANCE

Unit : %

SYMBOL	AA	A	B	C	D	F	G	H	J	K	L	M	N
RESISTANCE TOLERANCE	±0.01	±0.05	±0.1	±0.25	±0.5	±1	±2	±3	±5	±10	±15	±20	±30

HOW TO APPLY RESISTORS CORRECTLY

- The characteristics of resistor have relations to Temperature, Moisture and Voltage.
- The rating of resistor is specified on the basis of Temperature.
- The power rating resistor is all specified with a Direct—Current (D.C.) continuous working voltage at commercial—line frequency.
- The test regarding characteristics of resistor, is principally specified on the basis of moisture.
- Maximum rated voltage and maximum overload voltage are limited for each style of resistor.
 - Generally, Rated Voltage $E = \sqrt{PXR}$ Where, E=Volt, P=Watt, R=Ohm.
 - Generally, Overload Voltage $E_t = \sqrt{PXR \times 2.5}$, Application time=5 Seconds.

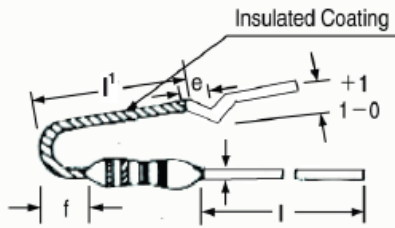
Note : Max. rated and Max. overload voltage are specified in each specification. So, the voltage value is computed over than specified voltage value, the specified value should be applied to resistor.
- In the complicated or high density circuit, it is recommended that the wattage or ohmic values of resistor should have a large redundancy from a view point of reliability.
- It is necessary that the handling or wiring of resistor to the circuit, be carefully and please do not inflict any stress to resistor with over heating application.
- To rise the reliability of resistor, it is better to prefer resistor with uniform quality than taking resistor to meet with severe specification.
- To rise the stability of resistor, it is very important by taking resistor to meet with circuit conditions and its also economical not to have unreasonable design from the point of pricing of resistor.
- Generally, failure of resistor takes a concentrated trend in the impulse circuit with complicated pulse wave form or LC circuit generated high voltage with transient phenomena. Therefore, it is very important for designers to consider these conditions in the circuit design if the resistor is applied in these circuit.

±5%	±2%	±1%	±0.5%	±5%	±2%	±1%	±0.5%
E24	E48	E96	E192	E24	E48	E96	E192
100	100	100	100	330			
		102	101		332	332	332
		105	102			340	336
		107	104			348	340
		110	105		348	348	344
		110	106			357	348
		110	107	360			352
		110	107				357
		115	110		365	365	361
		118	113			374	365
		120	114			383	370
		121	115			392	374
		121	117			392	379
		121	118			402	383
		124	120	390		402	388
		127	121			412	392
		130	122			422	397
		130	124			422	402
		133	126			432	407
		133	127			442	412
		137	129			453	417
		140	130	430		464	422
		140	132			475	427
		143	133			487	432
		147	135			499	437
		150	137			511	442
		154	137			523	448
		158	140			536	453
		160	142			549	459
		162	143			562	464
		165	144			576	470
		169	145			590	475
		174	147			604	481
		178	147			619	487
		180	149			634	493
		182	150	470		649	499
		187	152			665	505
		191	154			681	511
		196	155			698	517
		200	156			715	523
		205	158			732	530
		210	160			750	536
		215	162			768	542
		220	164			787	549
		221	165			806	556
		226	166			825	562
		232	167			845	569
		237	169			866	576
		243	172			887	583
		249	174			909	590
		255	176			931	597
		261	177			953	604
		267	178			976	612
		274	180				619
		280	182				626
		287	184				634
		294	187				642
		298	188				649
		301	189				657
		309	191				665
		316	193				673
		324	196				681
			198				681
			200	620			690
			203				698
			205				706
			208				715
			210				723
			213				732
			215				741
			218				750
			221				759
			223				768
			226				777
			229				787
			232				796
			234				806
			237				816
			240				825
			243				825
			246				835
			249				845
			252				856
			255				866
			258				876
			261				887
			264				898
			267				909
			271				920
			274				931
			277				942
			280				953
			284				965
			287				976
			291				988
			294				
			298				
			301				
			305				
			309				
			312				
			316				
			320				
			324				
			328				

CUT-AND-FORMED LEAD

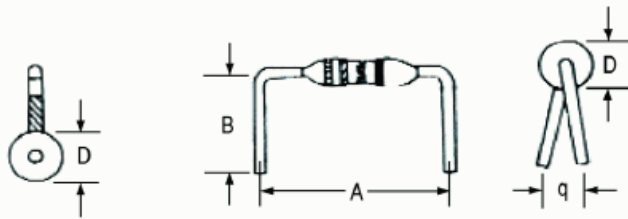
VERTICAL TYPE

FK-TYPE



HORIZONTAL TYPE

M-TYPE



TYPE	DIMENSIONS (MM)								
	D MAX.	l	d	f	l'	e	A	B	q
1/8W	2.10	25±3	0.43±0.05	3.5 max.	4.5±1.5	—	5±1 10±1	5-10	1.8 max.
1/4W	2.60	25±3	0.54±0.1	3.5 max.	8.5±1.5	3 max.	10±1 12.5±1		
1/2W	3.70	25±3	0.58±0.1	3.5 max.	11±1.5	3 max.	12.5±1 15±1		

SPECIAL TYPES FOR 1W, 2W AND 3W ONLY

F-Type



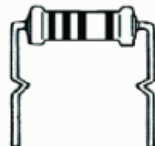
FK-Type



FKK-Type



MK-Type



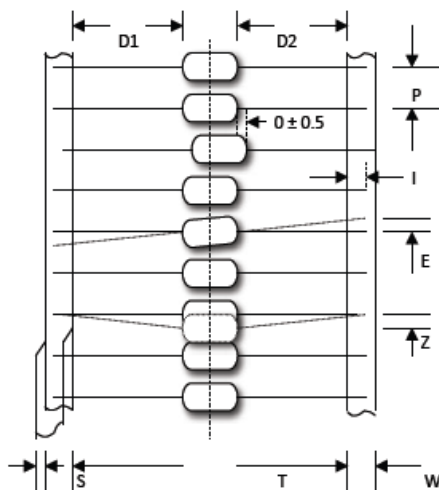
MB-Type



FKI -Type



AMMOPACK (TAPE/BOX)



Unit : mm

SIZE	T	P ±0.5	W ±0.5	D ₁ -D ₂ MAX.	E MAX.	Z MAX.	S MAX.	I MIN.
T-26	26±1	5	6	1.4	1	1.2	1	3
T-52	52±2	5	6	1.4	1	1.2	1	3
T-63	63±2	5	6	1.4	1	1.2	1	3
T-74	74±2	5	6	1.4	1	1.2	1	3
T-74	74±2	10	6	1.4	1	1.2	1	3