For Power Supply and Signal Transformer / EST Series

.Features

1. High magnetic permeability.
2. Excellent saturation flux density.
3. Low power loss.

.Application

1. Common mode choke for signal line.
2. Filter for video and audio signals.
3. Power supplies,switching circuits.

.Product Identification

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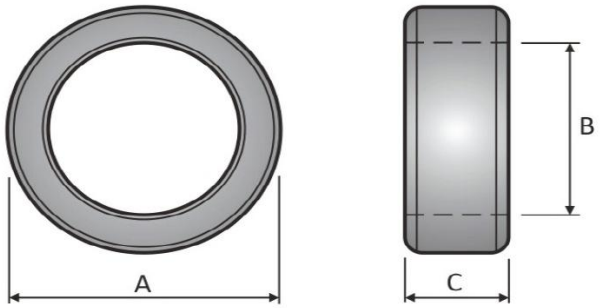
1 2 3 4 5

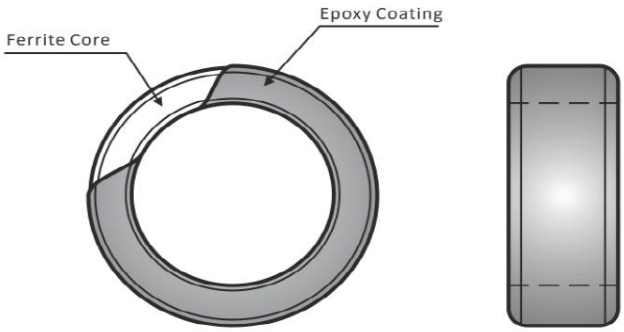
Product Series			Outer Diameter		Inner Diameter		Height	
EST	Material	7000 μi	060	6 mm	030	3 mm	030	3 mm
			080	8 mm	040	4 mm	040	3 mm
			080	8 mm	050	5 mm	030	3 mm

Coating	
B	Black
C	Gray
G	Green

.Shapes And Dimensions



.Construction



.Material List

No.	Location	Material
1	Ferrite Body	Fe2O3
		MnO
		ZnO
2	Epoxy Coating	Epoxy

ERocore

Lead-Free RoHS compliant

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.Dimensions & Characteristics

Unit : mm

Part No.	A (mm)	B (mm)	C (mm)	AL (nH / N^2)	Tolerance
EST060030030	6.0 ± 0.3	3.0 ± 0.3	3.0 ± 0.2	3150	30%
EST080040040	8.0 ± 0.3	4.0 ± 0.3	4.0 ± 0.3	3733	30%
EST080050030	8.0 ± 0.3	5.0 ± 0.3	3.0 ± 0.2	1950	30%
EST090050030	9.0 ± 0.3	5.0 ± 0.3	3.0 ± 0.2	2600	30%
EST100050050	10.0 ± 0.3	5.0 ± 0.3	5.0 ± 0.3	4660	30%
EST100060028	10.0 ± 0.3	6.0 ± 0.3	2.8 ± 0.2	1960	30%
EST100060035	10.0 ± 0.3	6.0 ± 0.3	3.5 ± 0.2	2450	30%
EST100060040	10.0 ± 0.3	6.0 ± 0.3	4.0 ± 0.2	2800	30%
EST100060050	10.0 ± 0.3	6.0 ± 0.3	5.0 ± 0.3	3800	30%
EST120060040	12.0 ± 0.4	6.0 ± 0.3	4.0 ± 0.3	3800	30%
EST127079063	12.7 ± 0.4	7.92 ± 0.3	6.35 ± 0.3	4500	30%
EST130060070	13.0 ± 0.4	6.0 ± 0.3	7.0 ± 0.3	7250	30%
EST130070050	13.0 ± 0.4	7.0 ± 0.3	5.0 ± 0.3	4200	30%
EST140080070	14.0 ± 0.4	8.0 ± 0.3	7.0 ± 0.3	5460	30%
EST140090050	14.0 ± 0.4	9.0 ± 0.3	5.0 ± 0.3	3300	30%
EST146105037	14.6 ± 0.4	10.5 ± 0.3	3.7 ± 0.3	1700	30%
EST160080050	16.0 ± 0.4	8.0 ± 0.3	5.0 ± 0.3	5200	30%
EST160090050	16.0 ± 0.4	9.0 ± 0.3	5.0 ± 0.3	3920	30%
EST160100070	16.0 ± 0.4	10.0 ± 0.3	7.0 ± 0.3	4523	30%
EST160120080	16.0 ± 0.4	12.0 ± 0.3	8.0 ± 0.3	3500	30%
EST180100063	18.0 ± 0.4	10.0 ± 0.3	6.35 ± 0.3	5600	30%
EST180100100	18.0 ± 0.4	10.0 ± 0.3	10.0 ± 0.3	8800	30%
EST190110100	19.0 ± 0.4	11.0 ± 0.3	10.0 ± 0.3	7460	30%
EST190130110	19.0 ± 0.4	13.0 ± 0.3	11.0 ± 0.3	5800	30%
EST200100070	20.0 ± 0.4	10.0 ± 0.3	7.0 ± 0.3	6550	30%
EST200100100	20.0 ± 0.4	10.0 ± 0.3	10.0 ± 0.3	9200	30%
EST200120100	20.0 ± 0.4	12.0 ± 0.4	10.0 ± 0.3	7000	30%
EST220140080	22.0 ± 0.4	14.0 ± 0.4	8.0 ± 0.3	5000	30%
EST220140100	22.0 ± 0.4	14.0 ± 0.4	10.0 ± 0.3	6300	30%
EST220140127	22.0 ± 0.4	14.0 ± 0.4	12.7 ± 0.3	9200	30%
EST250150100	25.0 ± 0.4	15.0 ± 0.4	10.0 ± 0.3	7500	30%
EST250150120	25.0 ± 0.4	15.0 ± 0.4	12.0 ± 0.3	9200	30%
EST250150130	25.0 ± 0.4	15.0 ± 0.4	13.0 ± 0.3	10000	30%

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Part No.	A (mm)	B (mm)	C (mm)	AL (nH / N^2)	Tolerance
EST260145200	26.0 ± 0.4	14.5 ± 0.4	20.0 ± 0.4	16300	30%
EST280124076	28.0 ± 0.4	12.4 ± 0.3	7.6 ± 0.3	7250	30%
EST280160160	28.0 ± 0.4	16.0 ± 0.4	16.0 ± 0.3	12500	30%
EST280180130	28.0 ± 0.4	18.0 ± 0.4	13.0 ± 0.3	7600	30%
EST290180150	29.0 ± 0.5	18.0 ± 0.4	15.0 ± 0.3	9800	30%
EST290190150	29.0 ± 0.5	19.0 ± 0.4	15.0 ± 0.3	9000	30%
EST310180140	31.0 ± 0.5	18.0 ± 0.5	14.0 ± 0.4	10500	30%
EST310190130	31.0 ± 0.5	19.0 ± 0.5	13.0 ± 0.4	8800	30%
EST310190150	31.0 ± 0.5	19.0 ± 0.5	15.0 ± 0.4	11200	30%
EST310200150	31.0 ± 0.5	20.0 ± 0.4	15.0 ± 0.4	9000	30%
EST340218210	34.0 ± 0.6	21.8 ± 0.6	21.4 ± 0.4	12850	30%
EST360230150	36.0 ± 0.5	23.0 ± 0.5	15.0 ± 0.4	9300	30%
EST370230150	37.0 ± 0.5	23.0 ± 0.5	15.0 ± 0.4	9800	30%
EST380190130	38.0 ± 0.5	19.0 ± 0.5	13.0 ± 0.4	12100	30%
EST380190150	38.0 ± 0.5	19.0 ± 0.5	15.0 ± 0.4	14000	30%
EST380190210	38.0 ± 0.5	19.0 ± 0.5	21.0 ± 0.4	19600	30%
EST380205150	38.0 ± 0.5	20.5 ± 0.5	15.0 ± 0.4	12600	30%
EST380220150	38.0 ± 0.5	22.0 ± 0.5	15.0 ± 0.4	11200	30%
EST380250150	38.0 ± 0.5	25.0 ± 0.5	15.0 ± 0.4	8666	30%
EST400230200	40.0 ± 0.8	23.0 ± 0.6	20.0 ± 0.5	15100	30%
EST400250200	40.0 ± 0.8	25.0 ± 0.6	20.0 ± 0.5	12920	30%
EST420260180	42.0 ± 0.8	26.0 ± 0.6	18.0 ± 0.6	11858	30%
EST450300150	45.0 ± 0.8	30.0 ± 0.6	15.0 ± 0.4	8400	30%
EST470270150	47.0 ± 0.8	27.0 ± 0.6	15.0 ± 0.4	11350	30%
EST480300100	48.0 ± 1.0	30.0 ± 0.5	10.0 ± 0.3	6500	30%
EST480300150	48.0 ± 1.0	30.0 ± 0.5	15.0 ± 0.4	10600	30%
EST490310150	49.0 ± 0.6	31.0 ± 0.6	15.0 ± 0.4	9500	30%
EST490310188	49.0 ± 0.6	31.0 ± 0.6	18.8 ± 0.4	11900	30%
EST490318188	49.0 ± 0.6	31.8 ± 0.6	18.8 ± 0.4	11900	30%
EST490338190	49.0 ± 0.6	33.8 ± 0.6	19.0 ± 0.3	9765	30%
EST500250200	50.0 ± 1.0	25.0 ± 0.6	20.0 ± 0.6	18666	30%
EST510310130	51.0 ± 1.0	31.0 ± 0.8	13.0 ± 0.4	9000	30%
EST560320180	56.0 ± 1.0	32.0 ± 1.0	18.0 ± 0.6	13500	30%

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Part No.	A (mm)	B (mm)	C (mm)	AL (nH / N^2)	Tolerance
EST560360200	56.0 ± 1.0	36.0 ± 1.0	20.0 ± 0.6	12100	30%
EST580400180	58.0 ± 1.5	40.0 ± 1.0	18.0 ± 0.6	9250	30%
EST600380200	60.0 ± 1.5	38.0 ± 1.0	20.0 ± 0.6	12560	30%
EST600400200	60.0 ± 1.5	40.0 ± 1.0	20.0 ± 0.6	11200	30%
EST630380127	63.0 ± 1.5	38.0 ± 1.0	12.7 ± 0.5	8800	30%
EST630380250	63.0 ± 1.5	38.0 ± 1.0	25.0 ± 0.8	19800	30%
EST680440150	68.0 ± 1.5	44.0 ± 0.8	15.0 ± 0.5	9000	30%
EST740400130	74.0 ± 1.5	40.0 ± 1.0	13.0 ± 0.4	10800	30%
EST800500200	80.0 ± 1.5	50.0 ± 1.0	20.0 ± 0.8	12900	30%
EST870540140	87.0 ± 2.0	54.0 ± 2.0	14.0 ± 0.5	9000	30%
EST870540300	87.0 ± 2.0	54.0 ± 2.0	30.0 ± 1.0	19500	30%

Note :

Specifications which provide more details for the proper and safe use of the described product are available upon request. all specifications are subject to change without notice.

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. Material Characteristic (Power)

Characteristic	Symbol	Unit	EKT	EQT	EFT	EST	ENT
Initial Permeability (B≤10 Gauss(0.1mT) ,T=25℃)	μi		2300 ± 25%	2500 ± 25%	5000 ± 25%	7000 ± 30%	10000 ± 30%
Saturation Flux Density at H=10 Oe	Bms	Gauss (mT)	4800 (480)	4800 (480)	4300 (430)	4200 (420)	3800 (380)
Residual Flux Density	Br	Gauss (mT)	1000 (100)	1200 (120)	1100 (110)	1200 (120)	1200 (120)
Coercive Force	Hc	Oersteds	0.14	0.12	0.08	0.08	0.05
Curie Temperature	Tc	℃	>210	>210	>170	>120	>120
Optimum Frequency range tmin / fmax		MHz	–	– / 0.3	– / 0.1	– / 0.1	–
DC resistivity	ρ	Ω - CM	800	50	30	2	2
Power Loss Typical T=25℃ / F=25KHz,B=200mT T=100℃ / F=100KHz,B=200mT T=25℃	PL	mW / CM^3	520 / 460 / 450	135 / 130 / 750	–	–	–
Mass Density	d	g / CM^3	4.8 ~ 4.9	4.8 ~ 4.9	4.8 ~ 4.9	4.8 ~ 4.9	4.8 ~ 4.9
Temperature Coefficient T= +25℃ to +100℃	**α μ γ**	$x10^{-6}$	4 ~ 6	4 ~ 6	0 ~ 2	-1 ~ 1	-1 ~ 1
Disaccomodatoin factor	DF	$x10^{-6}$	–	≤ 4	≤ 3	≤ 2	–
Eddy current and residual loss constant tand / mi at 25°C at B≤10 Gauss (0.1mT) , f=10KHz	$\frac{\tan\delta}{\mu i}$	$x10^{-6}$	1	≤ 1	≤ 1.5	≤ 3	≤ 6