

Soft Ferrites

Ferrite materials survey

Properties specified in this section are related to room temperature (25 °C) unless otherwise stated. They have been measured on sintered, non ground ring cores of dimensions $\varnothing 25 \times \varnothing 15 \times 10$ mm which are not subjected to external stresses.

Products generally comply with the material specification. However, deviations may occur due to shape size and grinding operations etc.

Specified product properties are given in the data sheets or product drawings.

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MAIN APPLICATION AREA	FREQUENCY RANGE (MHZ)	MATERIAL	μ_i at 25 °C	B_{sat} (mT) at 25 °C (3000 A/m)	T_C (°C)	ρ (Ωm)	FERRITE TYPE	AVAILABLE CORE SHAPES
Telecom filters Proximity sensors	< 0.1	3B7	2300	≈ 450	≥ 170	≈ 1	MnZn	RM, P, PT, PTS, EP, E, ER, RM/I, RM/ILP, PH
	0.2 - 2	3D3	750	≈ 400	≥ 200	≈ 2	MnZn	
	< 0.2	3H3	2000	≈ 400	≥ 160	≈ 2	MnZn	
Wideband signal transformers Pulse transformers Delay lines		3E27	6000	≈ 400	≥ 150	≈ 0.5	MnZn	RM, P, PT, PTS, EP, EP/LP, EPX, E, ER, RM/I, RM/ILP, Toroids
		3E28	4000	≈ 400	≥ 145	≈ 1	MnZn	
		3E5	10000	≈ 400	≥ 125	≈ 0.5	MnZn	
		3E55	10000	≈ 350	≥ 100	≈ 0.1	MnZn	
		3E6	12000	≈ 400	≥ 130	≈ 0.1	MnZn	
		3E7	15000	≈ 400	≥ 130	≈ 0.1	MnZn	
		3E8	18000	≈ 350	≥ 100	≈ 0.1	MnZn	
	3E9	20000	≈ 350	≥ 100	≈ 0.1	MnZn		
Line output transformers (LOT)	< 0.2	3C30	2100	≈ 500	≥ 240	≈ 2	MnZn	UR
	< 0.3	3C34	2100	≈ 500	≥ 240	≈ 5	MnZn	
Power transformers Power inductors General purpose transformers and inductors	< 0.2	3C81	2700	≈ 450	≥ 210	≈ 1	MnZn	E, Planar E, EC, EFD, EP, ETD, ER, U, RM/I, RM/ILP, P, P/I, PT, PTS, PQ, Toroids
	< 0.2	3C90	2300	≈ 450	≥ 220	≈ 5	MnZn	
	< 0.3	3C91	3000	≈ 450	≥ 220	≈ 5	MnZn	
	< 0.2	3C92	1500	≈ 500	≥ 280	≈ 5	MnZn	
	< 0.3	3C93	1800	≈ 450	≥ 240	≈ 5	MnZn	
	< 0.3	3C94	2300	≈ 450	≥ 220	≈ 5	MnZn	
	< 0.4	3C96	2000	≈ 500	≥ 240	≈ 5	MnZn	
	0.2 - 0.5	3F3	2000	≈ 450	≥ 200	≈ 2	MnZn	
	0.5 - 1	3F35	1400	≈ 500	≥ 240	≈ 10	MnZn	
	1 - 2	3F4	900	≈ 450	≥ 220	≈ 10	MnZn	
	1 - 2	3F45	900	≈ 500	≥ 300	≈ 10	MnZn	
	2 - 4	3F5	650	≈ 500	≥ 300	≈ 10	MnZn	
4 - 10	4F1	80	≈ 350	≥ 260	≈ 10 ⁵	NiZn		
Wideband EMI-suppression Wideband transformers Balun transformers	10 - 100	3B1	900	≈ 400	≥ 150	≈ 0.2	MnZn	BD, BDW, BDS, MLS, CMS, Cable shields, Rods, Toroids, WBS, WBC
	1 - 30	3S1	4000	≈ 400	≥ 125	≈ 1	MnZn	
	30 - 1000	3S3	350	≈ 350	≥ 225	≈ 10 ⁴	MnZn	
	10 - 300	3S4	1700	≈ 350	≥ 110	≈ 10 ³	MnZn	
	30 - 1000	4A11	700	≈ 350	≥ 125	≈ 10 ⁵	NiZn	
	10 - 300	4A15	1200	≈ 350	≥ 125	≈ 10 ⁵	NiZn	
	30 - 1000	4B1	250	≈ 350	≥ 250	≈ 10 ⁵	NiZn	
	50 - 1000	4C65	125	≈ 400	≥ 350	≈ 10 ⁵	NiZn	
30 - 1000	4S2	700	≈ 350	≥ 125	≈ 10 ⁵	NiZn		