M5E1 高頻穩定材料 (HIGH FREQUENCY STABLE MATERIAL)

M5E1 為鎳鋅鐵氧體材料，初始導磁率（μi）約 15，飽和磁通密度（Bs）約 170 mT，居禮溫度高於 320 ℃。在 10－130 MHz 頻段維持低損耗與高 Q 特性，適合應用於 RF 天線匹配電感、寬頻 EMI 濾波器，以及中高頻射頻變壓器，能兼顧高效率與頻率穩定性。

M5E1 is a NiZn ferrite material with an initial permeability (μi) of about 15, a saturation flux density (Bs) of 170 mT, and a Curie temperature above 320 ℃. It maintains low loss and high Q factor in the 10－130 MHz range, making it suitable for RF antenna matching inductors, broadband EMI filters, and mid- to high-frequency RF transformers, balancing efficiency and frequency stability.

特性 CHARACTERISTICS	測試條件 CONDITION		典型值 TYPICAL VALUE	單位 UNIT
初始磁導率 u_i Initial Permeability	100KHz & <0.2mT		15±25%	
Applicable frequency (適用頻率)			<130	MHz
飽和磁通密度 Bs Saturation Flux Density	3000 A/m 100Hz	25℃	170	mT
		100℃	165	
殘留磁通密度 Br Remanence	3000 A/m 100Hz	25℃	110	mT
		100℃	105	
矯頑力 Hc Coercivity	3000 A/m 100Hz	25℃	1400	A/m
		100℃	1380	
$\alpha\ \mu\ \gamma$ (溫度系數)	20-60℃		10	$x10^{-6}$
相對損失因數 Loss Factor	10MHz & <0.2mT		400	$x10^{-6}$
	50MHz & <0.2mT		420	
居禮溫度 Tc Curie Temp.	100KHz & <0.2mT		>320	℃
密度 D Density	阿基米德法 Archimedes method		4.9	g/cm^3
表面電阻 ρ Electrical Resistivity	直流電流 DC Current		10^7	Ω-m

備註：各項數值均為環形磁芯 T31*19*8 測得的典型數值。由於幾何形狀和尺寸的影響，產品規格將與這些數據有所差異。

Note：All values are typical values measured for the toroidal magnetic core T31*19*8. Due to the influence of geometric shape and size, the product specifications may differ from these data.

如需更多資訊或有任何需求，請隨時與我們的業務人員聯繫。我們將竭誠為您服務。
For more information or any inquiries, please feel free to contact our sales representatives. We are dedicated to serving you.
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