

Ferrite Core Specification

Technology Dept.

NCD P/N	LP3S EE130/63/40	Customer		Spec No.			
Cus. part		Customer's P/N		Rev.No.	00	Page	1/1
				Dimensions (mm)			
				A	130.0+3.0/-2.0		
				B	63.0±1.0		
				C	40.0±1.0		
				D	40.0±2.0		
				E	89.0min		
				F	46.0+1.0/-0.5		
Parameter	Le= 294 mm	Ae=1504 mm ²	Ve= 442337 mm ³	m≈2200 g/prs			
Electric Charateristics	Item	Unit	Spec.	Test Condition	Instrument		
	A _L	nH/N ²	12000±25%	10kHz,0.1V,φ0.35,10Ts,23±2℃	HP4284A or eq.		
	Pc	W	7.0max	25kHz,100mT,100℃	SY8216 or eq		
Appearance	Item	Content					
	Clean	Appearance must be clean.No powder accretes and watermark					
	Burr	Any blighting burr was not allow existed.					
	Crack	No crack and scar affect using					
	Chips	United surface: dia.≤5.0mm ² ,1part max.No united surface: dia≤10.0mm ² , 2parts max					
	Pull-out	Pull-out area≤ 1/10					
	Crystal Grain	Dia.4.0mm max ,less than 3 parts;Dia.6.0mm max ,less than 2 parts					
Distortion	Product distortion≤1.5mm						
Marking	(No Marking)						
Packing		Material	Quantity	Unit	Marks	Label	
	Inner	H80 Styrofoam	3	Prs			
	Outer	N425*300*220	12	Prs			
Test Rule	According to GB2828. Once natural project for sampling.(II)Dimensions:AQL=1.0Capability:AQL=0.65						
Customer Affirm	Customer Affirm				Design	Check	Appr.
					Date	2023-12-14	



MAANSHAN NEW CONDA MAGNETIC INDUSTRIAL CO.,LTD.

材料特性 MATERIAL CHARACTERISTICS

● LP3S型功率铁氧体材料 Power ferrite material LP3S

特性	符号	单位	条件	LP3S
Characteristics	Symbol	Unit	Condition	
起始磁导率 Initial permeability	μ_i			2500±25%
相对损耗因数 Relative loss factor	$\tan\delta/\mu_i$	$\times 10^{-6}$	100kHz	<3
饱和磁通密度*(1194A/m) Saturation flux density*	Bs	mT	25℃	530
			100℃	420
剩磁* Remanence*	Br	mT		180
矫顽力* Coercivity*	Hc	A/m		13
功率损耗* Power loss* (f=100kHz,B=100mT)	Pcv	kW/m ³	25℃	
			80℃	
			100℃	
功率损耗* Power loss* (f=100kHz,B=200mT)	Pcv	kW/m ³	25℃	600
			60℃	
			80℃	300
			100℃	280
			120℃	360
居里温度 Curie temperature	Tc	℃		≥230
电阻率* Resistivity*	ρ	$\Omega\cdot m$		4
密度* Density*	d	kg/m ³ ×10 ³		4.9

注： 1、如无说明，各项数值均在室温下用Φ25×Φ15×10环型磁心测得。

2、*为典型值,*¹测试条件为 (f=400kHz,B=50mT), *²测试条件为 (f=500kHz,B=50mT)。

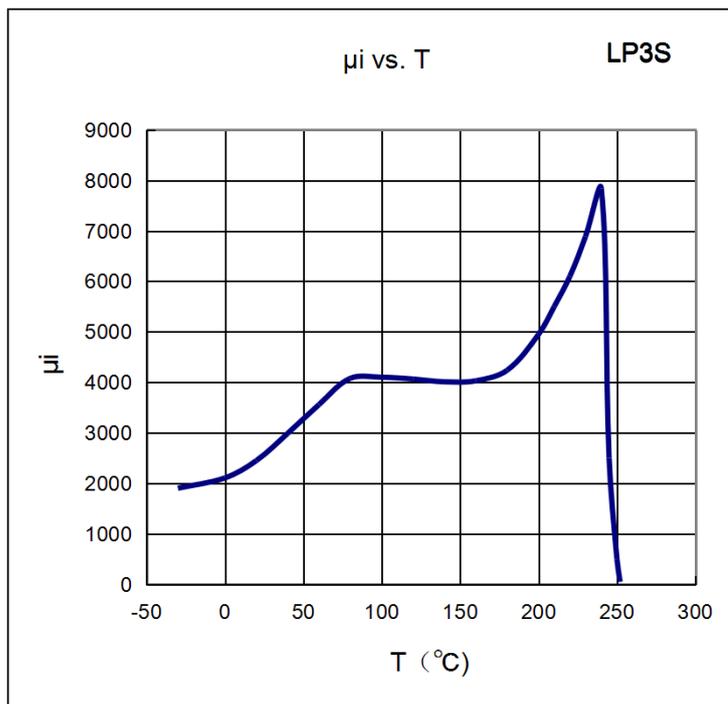
Note: 1.The values were obtained with toroidal core Φ25×Φ15×10 at room temperature unless otherwise specified.

2. * Typical value,*¹Test condition (f=400kHz,B=50mT),*²Test condition (f=500kHz,B=50mT)。

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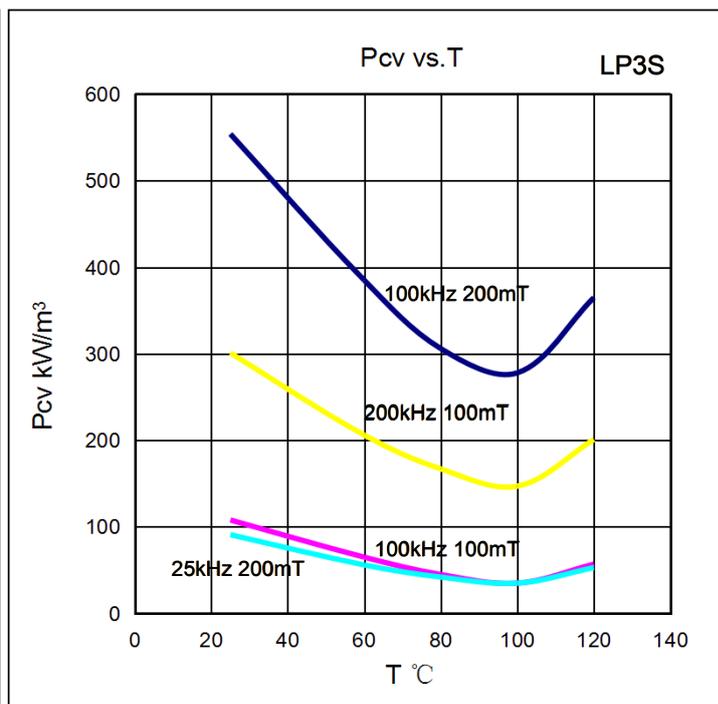
起始导磁率与温度关系

Permeability μ_i vs. Temperature T



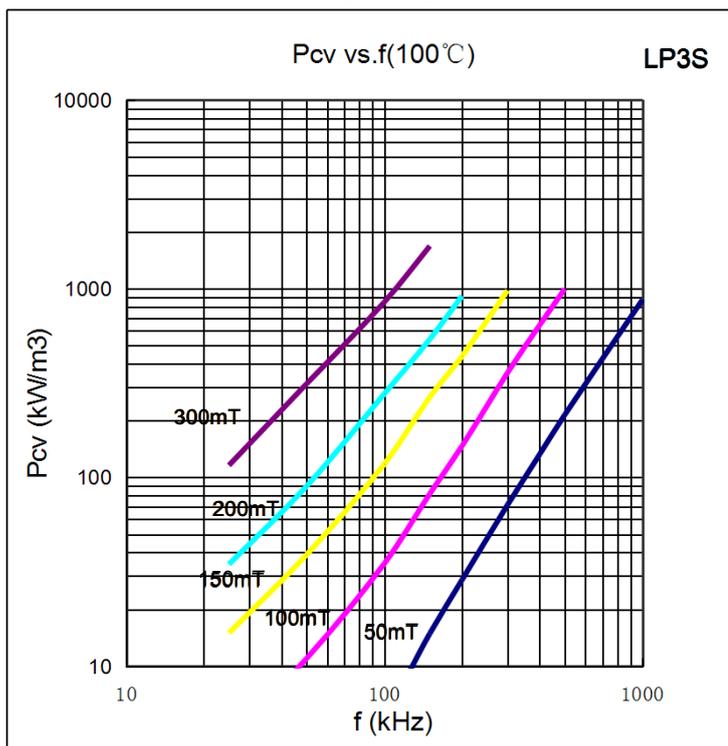
功率损耗与温度关系

Powerloss Pcv vs. Temperature



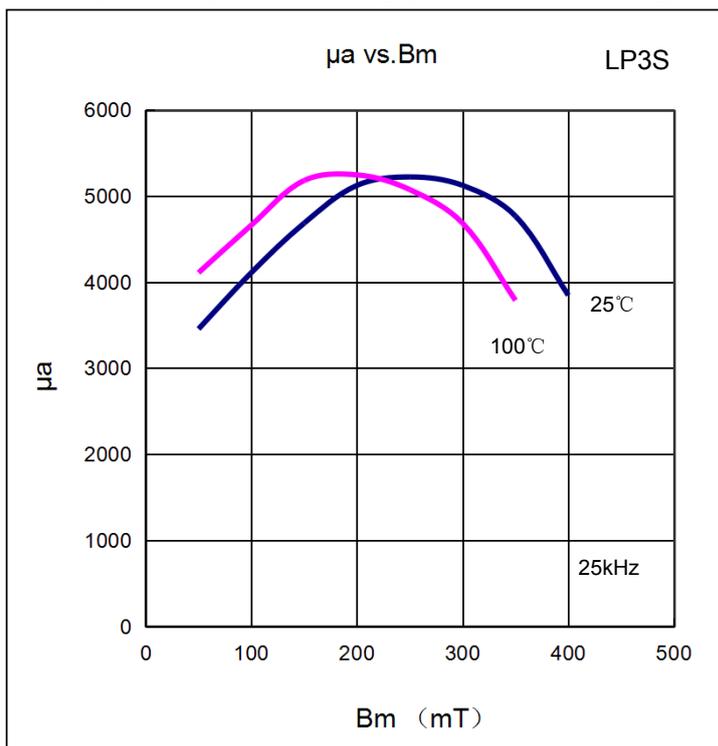
功率损耗与频率关系

Powerloss Pcv vs. frequency f



振幅磁导率与磁通密度关系

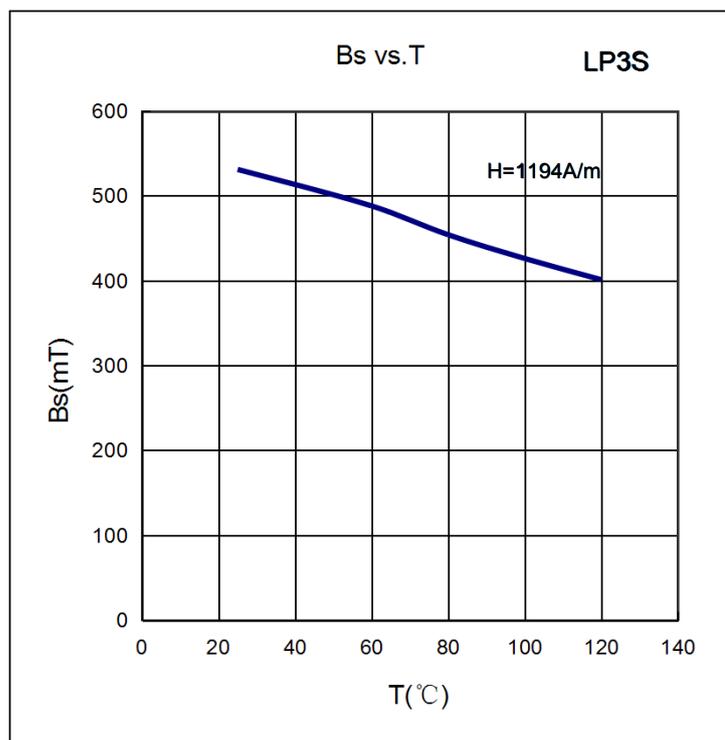
Amplitude permeability μ_a vs. flux density Bm



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饱和磁通密度与温度关系

Saturation flux density B_s vs. temperature T



磁通密度与磁场强度关系

Fulx density B vs.magnetic field H

