## T200-26

## **Features**

Good results of general power conversion and line filter administration. Applicable (at <50kHz) for Power Factor Correction Chokes, DC Chokes and lower Et/N. Also applies for 60 Hz differential-mode EMI Line Chokes, and light dimmer chokes.

Electrical Specifications								
Item	Unit/Symbol	Condition	Value	Tol.				
$A_L$	nH/N <sup>2</sup>	AC flux density of 10 gauss (1 mT) @10 kHz	92.0	± 10%				
Le	cm	N/A	13.00	Тур.				
Ae	cm <sup>2</sup>	N/A	1.270	Тур.				
Ve	cm <sup>3</sup>	N/A	16.400	Тур.				
Density	g/cm <sup>3</sup>	N/A	7.0	Typ.				
Permeability	$\mu_0$	N/A	75	± 10%				
Permeability with DC BIAS	%μ <sub>0</sub> , μ <sub>0</sub> effective	HDC = 50 Oerstesd	51, 38.3	Тур.				
Temp. Coef. of Permeability	+ppm/°C	N/A	825	Тур.				
Coef. of Lin. Expansion	+ppm/°C	N/A	12	Тур.				
Thermal Conductivity	mW/cm-°C	N/A	42	Тур.				

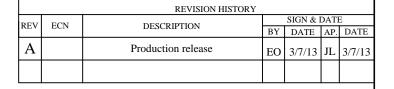
$$Temperature \ Rise: \Delta T(^{\circ}C) = \left[\frac{Total \ Power \ Dissipation \ (milliwatts)}{Surface \ Area \ (cm^{2})}\right]^{0.833}$$

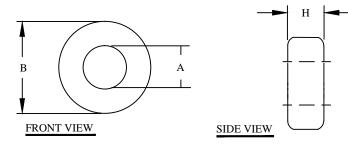
$$Required turns = \left[ \frac{desired L (nH)}{A_L \left( \frac{nH}{N^2} \right)} \right]^{\frac{1}{2}}$$

Peak AC Flux Density: 
$$B_{pk} = \frac{E_{avg}10^8}{4ANf}$$

Magnetizing Force: 
$$H = \frac{0.4\pi\,N\,I}{\ell}$$

Core Loss in mW/cm <sup>3</sup> (extrapolated data from high frequency testing)							
Frequency	60 Hz	1kHz	10kHz	50kHz	100kHz	500kHz	
Condition	@ 5000G	@ 1500G	@ 500G	@ 225G	@ 140G	@ 50G	
Value	32	60	75	89	83	139	





Case Dimensional Tolerances							
	in	tol. mm		tol.			
B (Outer Diameter)	2.000	0.025	50.80	0.64			
A (Inner Diameter)	1.250	0.025	31.80	0.64			
H (Height)	0.550	0.030	14.00	0.76			
Weight 114.80 g							

## For additional detail, specifications and charts see:

http://www.bytemark.com/products/IPCores index.html

$\ell$ = Mean Magnetic Path (cm)			CODE	1		. 1		DECODIDE		ITEM
A = Cross-sectional area (cm <sup>2</sup> )		IDENT   MFG		G. P/N				NO.		
f = frequency (hertz) B <sub>nk</sub> = Gauss (G)			PARTS LIST							
D <sub>pk</sub> – Gauss (G)		AUTOCAD		Х			CWSBYTEMARK			
		SOLID	WORKS		www.coilws.com		353 West (	Vest Grove Ave. Orange, CA.		
	UNLESS OTHERWISE SPECIFIED	SIGN		DATE	www	cwsby.	temark.com	n 92865		iige, CA.
	DIMENSIONING AND TOLERANCE PER ANSI Y14.5M	DRAWN	ЕО	3/7/13	TITLE:	Iron I	Powder Co	r Core Material Mix 26		
	ALL DIMENSIONS ARE IN INCHES AND [MILIMETERS].	CHECKED	JL	3/7/13		11011 1				20,
	TOLERANCE INCHES: .XXX=±.005 .XX=±.015 <्≠=±0°30 TOLERANCE METRICS:		JL	3/7/13	CIZE I	DINO NO	1 (11)	Yellow/White		
	.XXX=±.127 .XX=±.38 <\( =±0.30 \)	APPR.	JL	3/7/13	В	ZE DWG. NO. T200-26			REV A	
	ANGLE PROJECTION 🔀 🚭			0, 1, 10			1 200-20			11
	DO NOT SCALE DRAWING				SCALE		N/A		SHEET 1 O	F 1
	·						OAD EII	Г.		

EP FORM0005 REV 3 10/01 CAD-FILE:

L = inductancenH = nanohenries

H = oersteds (Oe) N = Number of turns

I = Current (amperes)