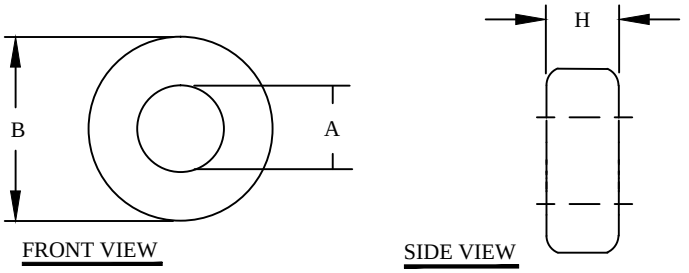
T400-26D

REVISION HISTORY						
REV	ECN	DESCRIPTION	SIGN & DATE			
			BY	DATE	AP.	DATE
A		Production release	EO	3/7/13	JL	3/7/13

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^2	AC flux density of 10 gauss (1 mT) @10 kHz	262.0	± 10%
L_e	cm	N/A	25.00	Typ.
A_e	cm^2	N/A	6.850	Typ.
V_e	cm^3	N/A	171.000	Typ.
Density	g/cm^3	N/A	7.0	Typ.
Permeability	μ_0	N/A	75	± 10%
Permeability with DC BIAS	$\%\mu_0$, $\mu_0$effective	HDC = 50 Oerstesd	51, 38.3	Typ.
Temp. Coef. of Permeability	+ppm/°C	N/A	825	Typ.
Coef. of Lin. Expansion	+ppm/°C	N/A	12	Typ.
Thermal Conductivity	mW/cm-°C	N/A	42	Typ.



Case Dimensional Tolerances				
	in	tol.	mm	tol.
B (Outer Diameter)	4.000	0.030	102.00	0.76
A (Inner Diameter)	2.250	0.030	57.20	0.76
H (Height)	1.300	0.030	33.00	0.76
Weight 1197.00 g				

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

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

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

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

L = inductance
nH = nanohenries
H = oersteds (Oe)
N = Number of turns
I = Current (amperes)
ℓ = Mean Magnetic Path (cm)
A = Cross-sectional area (cm^2)
f = frequency (hertz)
B_{pk} = Gauss (G)

For additional detail, specifications and charts see:

http://www.bytemark.com/products/IPCores_index.html

Core Loss in mW/cm^3 (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

UNLESS OTHERWISE SPECIFIED
DIMENSIONING AND TOLERANCE PER ANSI Y14.5M
ALL DIMENSIONS ARE IN INCHES AND [MILIMETERS].
TOLERANCE INCHES: .XXX=±.005 .XX=±.015 ∠=±0°30'
TOLERANCE METRICS: .XXX=±.127 .XX=±.38 ∠=±0°30'
ANGLE PROJECTION
DO NOT SCALE DRAWING

	CODE IDENT	MFG. P/N	DESCRIPTION	ITEM NO.
PARTS LIST				

AUTOCAD	X	www.coilws.com www.cwsbytemark.com	CWSBYTEMARK 353 West Grove Ave. Orange, CA. 92865
SOLIDWORKS			
SIGN	DATE		
DRAWN EO	3/7/13	TITLE: Iron Powder Core Material Mix 26, Yellow/White	
CHECKED JL	3/7/13		
ENGR. JL	3/7/13		
APPR. JL	3/7/13		
		SIZE B / DWG. NO. T400-26D / REV A	
		SCALE N/A	SHEET 1 OF 1

CAD–FILE: