DATA SHEET

P26/16/I
P cores and accessories

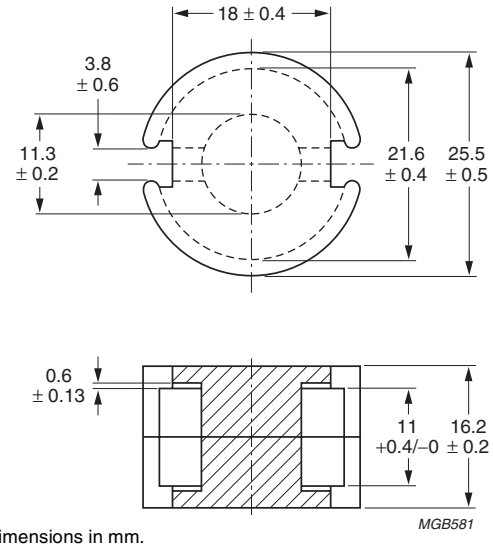
Supersedes data of September 2004 2008 Sep 01

FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.360	mm^{-1}
V_e	effective volume	4370	mm^3
l_e	effective length	39.6	mm
A_e	effective area	110	mm^2
A_{min}	minimum area	87.0	mm^2
m	mass of set	≈ 21	g



Dimensions in mm.

Fig.1 P26/16/I core set.

Core sets for general purpose transformers and power applications

Clamping force for A_L measurements, 50 ±20 N.

GRADE	A_L (nH)	μ_e	TOTAL AIR GAP (μm)	TYPE NUMBER
3C81	250 ±3%	≈ 72	≈ 660	P26/16/I-3C81-E250
	315 ±3%	≈ 90	≈ 500	P26/16/I-3C81-A315
	400 ±3%	≈ 115	≈ 380	P26/16/I-3C81-A400
	630 ±3%	≈ 180	≈ 230	P26/16/I-3C81-A630
	1000 ±3%	≈ 286	≈ 130	P26/16/I-3C81-A1000
	7000 ±25%	≈ 2010	≈ 0	P26/16/I-3C81
3C91 des	7000 ±25%	≈ 2010	≈ 0	P26/16/I-3C91
3F3	250 ±3%	≈ 72	≈ 660	P26/16/I-3F3-E250
	315 ±3%	≈ 90	≈ 500	P26/16/I-3F3-A315
	400 ±3%	≈ 115	≈ 380	P26/16/I-3F3-A400
	630 ±3%	≈ 180	≈ 230	P26/16/I-3F3-A630
	1000 ±3%	≈ 286	≈ 130	P26/16/I-3F3-A1000
	5250 ±25%	≈ 1505	≈ 0	P26/16/I-3F3

Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 25 kHz; T = 100 °C	$\hat{B}$ = 200 mT; f = 25 kHz; T = 100 °C	$\hat{B}$ = 100 mT; f = 100 kHz; T = 100 °C	$\hat{B}$ = 200 mT; f = 100 kHz; T = 100 °C	$\hat{B}$ = 50 mT; f = 400 kHz; T = 100 °C
3C81	≥320	≤ 1.0	–	–	–
3C91	≥315	–	≤ 0.22[1]	≤ 1.6[1]	–
3F3	≥315	–	≤ 0.48	–	≤ 0.83

Note

1. Measured at 60 °C.

BOBBINS AND ACCESSORIES

Coil formers, winding data and mounting parts are equal to those of *"P26/16"*, but *"area product"* is different.

Winding data and area product (for P26/16/I) for CP-P26/16 coil former

NUMBER OF SECTIONS	WINDING AREA (mm^2)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	37.1	9.3	52.6	4080	CP-P26/16-1S
2	2 × 17.5	2 × 4.35	52.6	2 x 1925	CP-P26/16-2S
3	3 × 11	3 × 2.7	52.6	3 x 1210	CP-P26/16-3S

Winding data and area product (for P26/16/I) for 6-pins P26/16 coil former for PCB mounting

NUMBER OF SECTIONS	MINIMUM WINDING AREA (mm^2)	NOMINAL WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	MINIMUM LENGTH OF PINS (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	36.7	9.7	52.7	4.4	4040	CPV-P26/16-1S-6PD
1	36.7	9.7	52.7	6.8	4040	CPV-P26/16-1S-6PDL
2	2 × 16.6	2 × 4.5	52.7	4.4	2 x 1830	CPV-P26/16-2S-6PD
2	2 × 16.6	2 × 4.5	52.7	6.8	2 x 1830	CPV-P26/16-2S-6PDL
3	3 × 10.3	3 × 2.8	52.7	4.4	3 x 1130	CPV-P26/16-3S-6PD[1]
3	3 × 10.3	3 × 2.8	52.7	6.8	3 x 1130	CPV-P26/16-3S-6PDL[1]

Note

1. In accordance with *"UL 94-HB"*.

DATA SHEET STATUS DEFINITIONS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
Preliminary specification	Development	This data sheet contains preliminary data. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

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PRODUCT STATUS DEFINITIONS

STATUS	INDICATION	DEFINITION
Prototype	prot	These are products that have been made as development samples for the purposes of technical evaluation only. The data for these types is provisional and is subject to change.
Design-in	des	These products are recommended for new designs.
Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support	sup	These products are **not** recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.