

# DATA SHEET

**P26/16/I**  
P cores and accessories

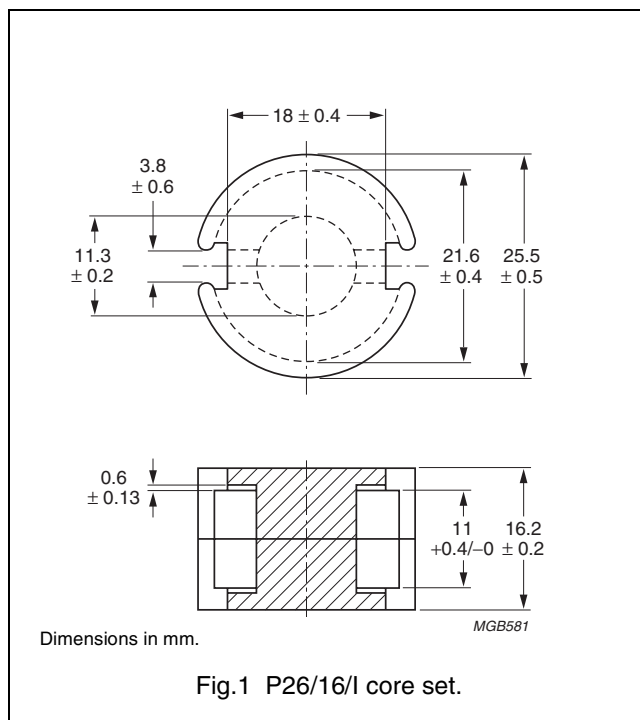
Supersedes data of September 2004

2008 Sep 01

**CORE SETS**

**Effective core parameters**

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



**Core sets for general purpose transformers and power applications**

Clamping force for  $A_L$  measurements, 50 ± 20 N.

| GRADE   | $A_L$<br>(nH) | $\mu_e$ | TOTAL AIR GAP<br>( $\mu\text{m}$ ) | 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 <span style="font-size: small;">des</span> | 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;<br>f = 25 kHz;<br>T = 100 °C | f = 25 kHz;<br>B = 200 mT;<br>T = 100 °C | f = 100 kHz;<br>B = 100 mT;<br>T = 100 °C | f = 100 kHz;<br>B = 200 mT;<br>T = 100 °C | f = 400 kHz;<br>B = 50 mT;<br>T = 100 °C |
| 3C81  | ≥320                                      | ≤ 1.0                                    | –   | –   | –  |
| 3C91  | ≥315                                      | –  | ≤ 0.22 <sup>(1)</sup>                     | ≤ 1.6 <sup>(1)</sup>                      | –  |
| 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 <sup>2</sup> ) | MINIMUM WINDING WIDTH (mm) | AVERAGE LENGTH OF TURN (mm) | AREA PRODUCT Ae x Aw (mm <sup>4</sup> ) | 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 <sup>2</sup> ) | NOMINAL WINDING WIDTH (mm) | AVERAGE LENGTH OF TURN (mm) | MINIMUM LENGTH OF PINS (mm) | AREA PRODUCT Ae x Aw (mm <sup>4</sup> ) | 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 <sup>(1)</sup>  |
| 3                  | 3 × 10.3                                | 3 × 2.8                    | 52.7                        | 6.8                         | 3 x 1130                                | CPV-P26/16-3S-6PDL <sup>(1)</sup> |

## 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   |
|------------------|---|--|
| <b>Prototype</b> |  | 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. |
| <b>Design-in</b> |  | These products are recommended for new designs.  |
| <b>Preferred</b> |   | These products are recommended for use in current designs and are available via our sales channels.  |
| <b>Support</b>   |  | These products are <b>not</b> recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.         |