

DATA SHEET

PTS23/18

**PT, PTS, PTS/I cores and
accessories**

Supersedes data of September 2004

2008 Sep 01

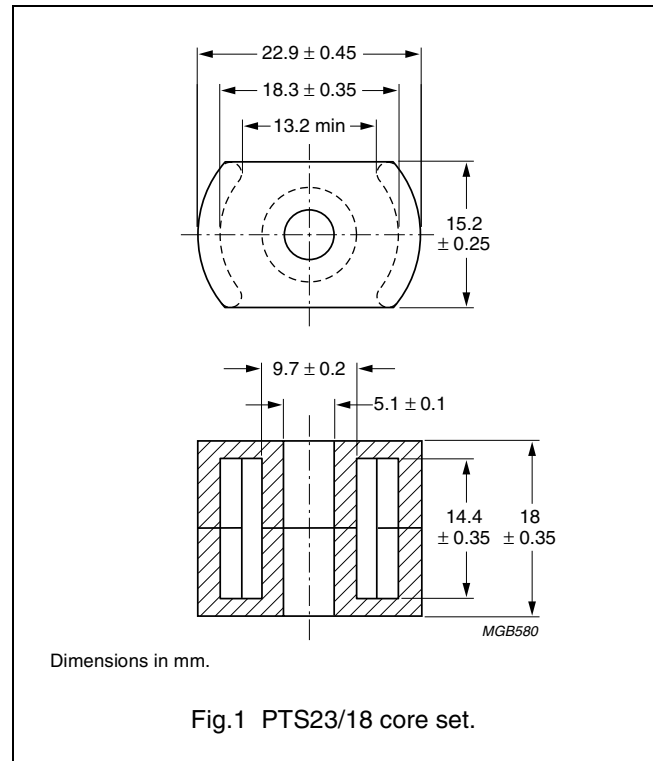


FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.770	mm ⁻¹
V_e	effective volume	2630	mm ³
l_e	effective length	45.1	mm
A_e	effective area	58.3	mm ²
A_{min}	minimum area	53.6	mm ²
m	mass of set	≈ 13	g



Core sets for general purpose transformers and power applications

Clamping force for A_L measurements, 30 ± 10 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C81	160 ± 3%	≈ 98	≈ 570	PTS23/18-3C81-A160
	250 ± 3%	≈ 154	≈ 330	PTS23/18-3C81-A250
	315 ± 3%	≈ 194	≈ 250	PTS23/18-3C81-A315
	400 ± 3%	≈ 246	≈ 190	PTS23/18-3C81-A400
	630 ± 5%	≈ 387	≈ 110	PTS23/18-3C81-A630
	3800 ± 25%	≈ 2320	≈ 0	PTS23/18-3C81
3C91 des	3800 ± 25%	≈ 2320	≈ 0	PTS23/18-3C91
3F3	160 ± 3%	≈ 98	≈ 570	PTS23/18-3F3-A160
	250 ± 3%	≈ 154	≈ 330	PTS23/18-3F3-A250
	315 ± 3%	≈ 194	≈ 250	PTS23/18-3F3-A315
	400 ± 3%	≈ 246	≈ 190	PTS23/18-3F3-A400
	630 ± 5%	≈ 387	≈ 110	PTS23/18-3F3-A630
	2500 ± 25%	≈ 1500	≈ 0	PTS23/18-3F3

PT, PTS, PTS/I cores and accessories

PTS23/18
(2318THS)**Core sets of high permeability grades**Clamping force for A_L measurements, 30 ± 10 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3E27	$5945 \pm 25\%$	≈ 3630	≈ 0	PTS23/18-3E27

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	f = 25 kHz; B = 200 mT; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 100 kHz; B = 200 mT; T = 100 °C	f = 400 kHz; B = 50 mT; T = 100 °C
3C81	≥ 320	≤ 0.54	–	–	–
3C91	≥ 320	–	$\leq 0.14^{(1)}$	$\leq 1.0^{(1)}$	–
3F3	≥ 315	–	≤ 0.29	–	≤ 0.5

Note

1. Measured at 60 °C.

BOBBINS AND ACCESSORIES

Coil formers, winding data and mounting parts are equal to those of "PT23/18", but "area product" is different.

Winding data and area product (for PTS23/18) for 10-pins PT23/18 coil former

NUMBER OF SECTIONS	MINIMUM WINDING AREA (mm ²)	NOMINAL WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT $A_e \times A_w$ (mm ⁴)	TYPE NUMBER
1	36.0	11.8	45.2	2100	CPV-PT23/18-1S-10P




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		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		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		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.