

# DATA SHEET

**EPX8**

**EPX cores and accessories**

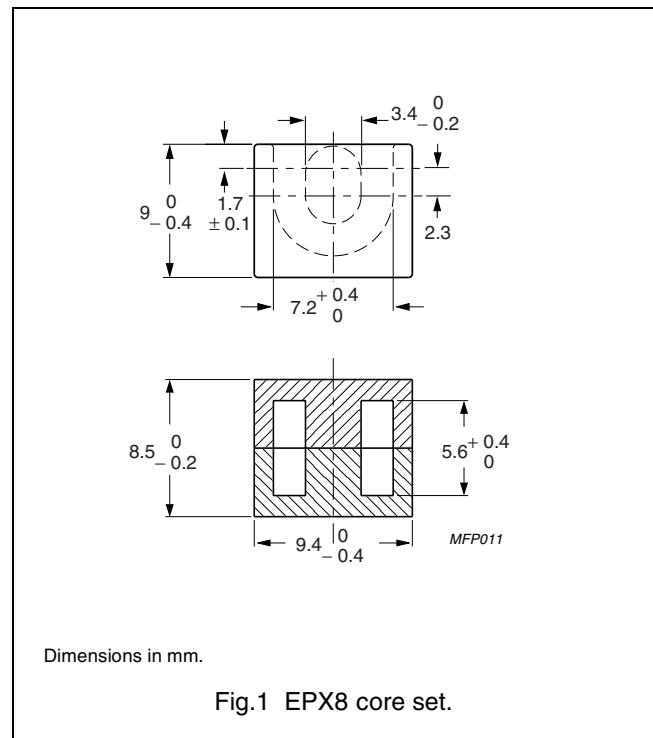
Supersedes data of September 2004

2008 Sep 01

**CORE SETS**

**Effective core parameters**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.04	mm <sup>-1</sup>
$V_e$	effective volume	279	mm <sup>3</sup>
$l_e$	effective length	17.0	mm
$A_e$	effective area	16.4	mm <sup>2</sup>
$A_{min}$	minimum area	14.5	mm <sup>2</sup>
m	mass of core set	≈ 2.3	g



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

Clamping force for  $A_L$  measurements, 30 ± 10 N.

GRADE	$A_L$ (nH)	$\mu_e$	AIR GAP (μm)	TYPE NUMBER
3C94	1800 ± 25 %	≈ 1490	≈ 0	EPX8-3C94
3C96 <small>des</small>	1650 ± 25 %	≈ 1365	≈ 0	EPX8-3C96
3F35 <small>des</small>	1300 ± 25 %	≈ 1075	≈ 0	EPX8-3F35

**Core sets for filter applications**

Clamping force for  $A_L$  measurements, 30 ± 10 N.

GRADE	$A_L$ (nH)	$\mu_e$	AIR GAP (μm)	TYPE NUMBER
3B46 <small>des</small>	2400 ± 25 %	≈ 1990	≈ 0	EPX8-3B46

## EPX cores and accessories

EPX8

**Core sets of high permeability grades**Clamping force for  $A_L$  measurements,  $30 \pm 10$  N.

GRADE	$A_L$ (nH)	$\mu_e$	AIR GAP ( $\mu\text{m}$ )	TYPE NUMBER
3E55 <small>des</small>	$63 \pm 3 \%$	$\approx 52$	$\approx 440$	EPX8-3E55-A63
	$100 \pm 3 \%$	$\approx 83$	$\approx 250$	EPX8-3E55-A100
	$160 \pm 3 \%$	$\approx 132$	$\approx 150$	EPX8-3E55-A160
	$250 \pm 5 \%$	$\approx 207$	$\approx 90$	EPX8-3E55-A250
	$315 \pm 5 \%$	$\approx 261$	$\approx 70$	EPX8-3E55-A315
	$400 \pm 8 \%$	$\approx 331$	$\approx 50$	EPX8-3E55-A400
	$7800 + 40 / - 30 \%$	$\approx 6455$	$\approx 0$	EPX8-3E55
3E6	$8700 + 40 / - 30 \%$	$\approx 7200$	$\approx 0$	EPX8-3E6

**Properties under power conditions**

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; $\hat{B} = 100$ mT; T = 100 °C	f = 100 kHz; $\hat{B} = 200$ mT; T = 100 °C	f = 500 kHz; $\hat{B} = 50$ mT; T = 100 °C	f = 500 kHz; $\hat{B} = 100$ mT; T = 100 °C
3C94	$\geq 320$	$\leq 0.022$	$\leq 0.14$	–	–
3C96	$\geq 340$	$\leq 0.017$	$\leq 0.11$	$\leq 0.09$	–
3F35	$\geq 300$	–	–	$\leq 0.032$	$\leq 0.27$

**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.

**DISCLAIMER**

**Life support applications** — These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Ferroxcube customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Ferroxcube for any damages resulting from such application.

**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.