

DATA SHEET

PQ35/35

PQ cores and accessories

Supersedes data of September 2004

2008 Sep 01

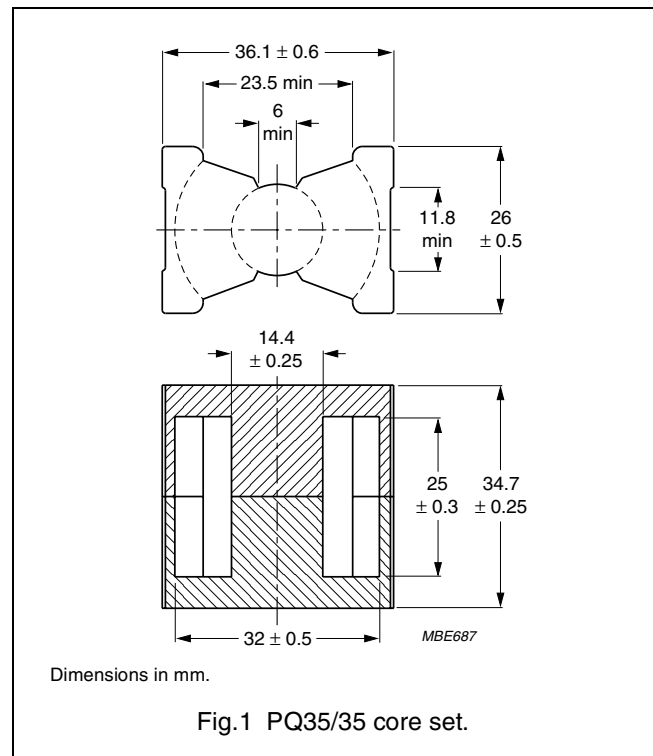


FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.454	mm ⁻¹
V_e	effective volume	16300	mm ³
l_e	effective length	86.1	mm
A_e	effective area	190	mm ²
A_{min}	minimum area	162	mm ²
m	mass of set	≈ 73	g



Core sets for general purpose transformers and power applications

Clamping force for A_L measurements, 80 ± 20 N.

GRADE	A_L (nH)	μ_e	TOTAL AIR GAP (μm)	TYPE NUMBER
3C81	315 ±3%	≈ 114	≈ 920	PQ35/35-3C81-E315
	400 ±3%	≈ 144	≈ 690	PQ35/35-3C81-E400
	630 ±3%	≈ 227	≈ 400	PQ35/35-3C81-A630
	1000 ±3%	≈ 361	≈ 230	PQ35/35-3C81-A1000
	1600 ±5%	≈ 577	≈ 120	PQ35/35-3C81-A1600
	6000 ±25%	≈ 2160	≈ 0	PQ35/35-3C81
3C90	315 ±3%	≈ 114	≈ 920	PQ35/35-3C90-E315
	400 ±3%	≈ 144	≈ 690	PQ35/35-3C90-E400
	630 ±3%	≈ 227	≈ 400	PQ35/35-3C90-A630
	1000 ±3%	≈ 361	≈ 230	PQ35/35-3C90-A1000
	1600 ±5%	≈ 577	≈ 120	PQ35/35-3C90-A1600
	5200 ±25%	≈ 1880	≈ 0	PQ35/35-3C90
3C91 des	6000 ±25%	≈ 2160	≈ 0	PQ35/35-3C91
3C94	5200 ±25%	≈ 1880	≈ 0	PQ35/35-3C94
3C95 des	6000 ±25%	≈ 2160	≈ 0	PQ35/35-3C95
3C96 des	4700 ±25%	≈ 1700	≈ 0	PQ35/35-3C96

GRADE	A_L (nH)	μ_e	TOTAL AIR GAP (μm)	TYPE NUMBER
3F3	315 \pm 3%	\approx 114	\approx 920	PQ35/35-3F3-E315
	400 \pm 3%	\approx 144	\approx 690	PQ35/35-3F3-E400
	630 \pm 3%	\approx 227	\approx 400	PQ35/35-3F3-A630
	1000 \pm 3%	\approx 361	\approx 230	PQ35/35-3F3-A1000
	1600 \pm 5%	\approx 577	\approx 120	PQ35/35-3F3-A1600
	4570 \pm 25%	\approx 1650	\approx 0	PQ35/35-3F3

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	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 = 25 °C	f = 100 kHz; B = 200 mT; T = 100 °C	f = 400 kHz; B = 50 mT; T = 100 °C	f = 500 kHz; B = 50 mT; T = 100 °C
3C81	\geq 320	\leq 3.8	–	–	–	–	–
3C90	\geq 320	\leq 2.0	\leq 2.1	–	–	–	–
3C91	\geq 320	–	\leq 1.2 ⁽¹⁾	–	\leq 8.0 ⁽¹⁾	–	–
3C94	\geq 320	–	\leq 1.6	–	\leq 10	–	–
3C95	\geq 320	–	–	\leq 10.3	\leq 9.78	–	–
3C96	\geq 340	–	\leq 1.2	–	\leq 8.0	\leq 3.0	\leq 6.1
3F3	\geq 320	–	\leq 1.8	–	–	\leq 3.1	–

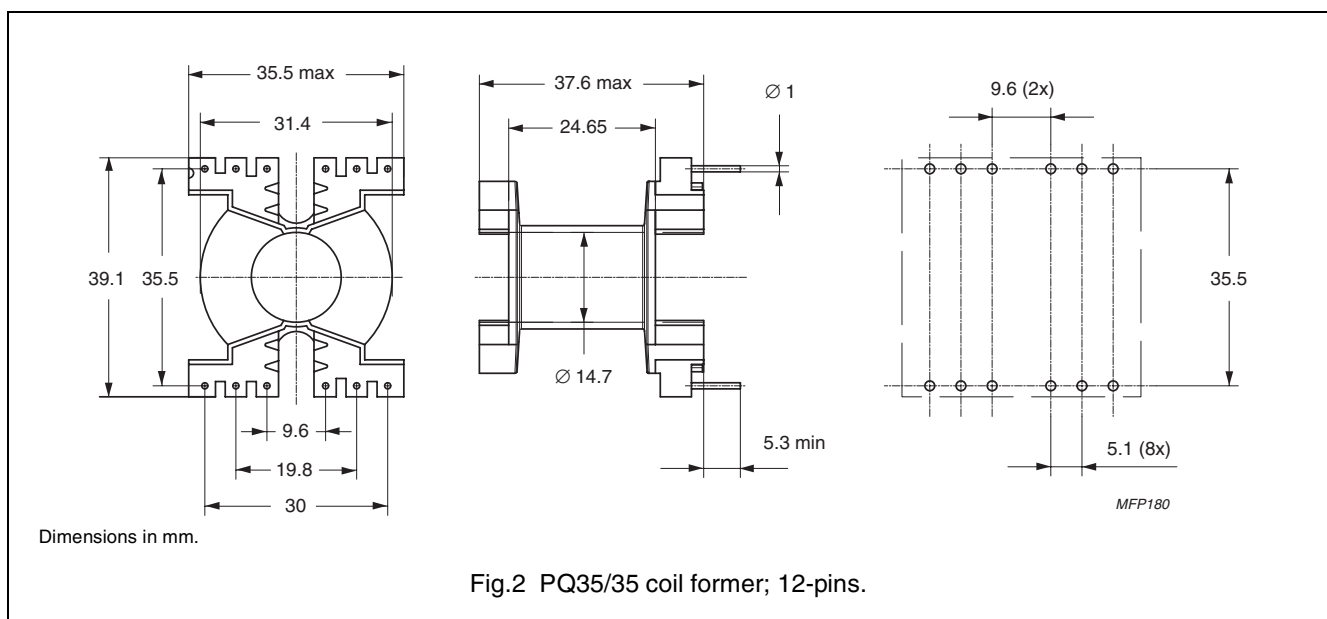
Note

1. Measured at 60 °C.

COIL FORMER

General data 12-pins PQ35/35 coil former

PARAMETER	SPECIFICATION
Coil former material	Polyethylene terephthalate (PET), glass-reinforced, flame retardant in accordance with "UL 94V-0"; UL file number E41938
Pin material	copper-plated steel wire, tin (Sn) plated
Maximum operating temperature	180 °C, "IEC 60085", class H
Resistance to soldering heat	"IEC 60068-2-20", Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1



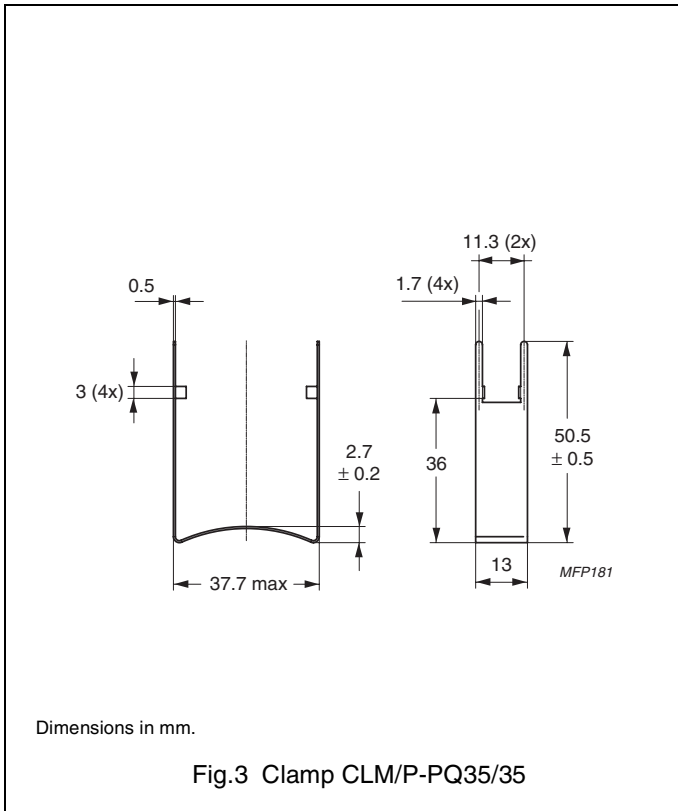
Winding data for 12-pins PQ35/35 coil former

NUMBER OF SECTIONS	MINIMUM WINDING AREA (mm ²)	NOMINAL WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	TYPE NUMBER
1	152	20.8	75	CPV-PQ35/35-1S-12P-Z

MOUNTING PARTS

General data

ITEM	REMARKS	TYPE NUMBER
Clamp	phosphorbronze, Sn plated, earth pins solderability acc. to "IEC 60068-2-20", Part 2, Test Ta, method 1: 235 °C, 2 s	CLM/P-PQ35/35



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

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