

DATA SHEET

E14/3.5/5/R

Planar E cores and accessories

Supersedes data of February 2002

2004 Sep 01

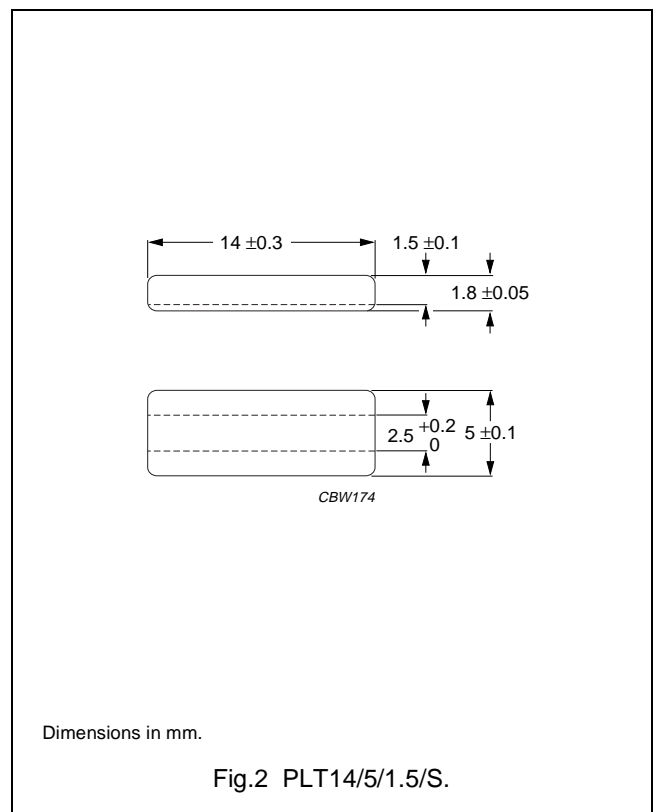
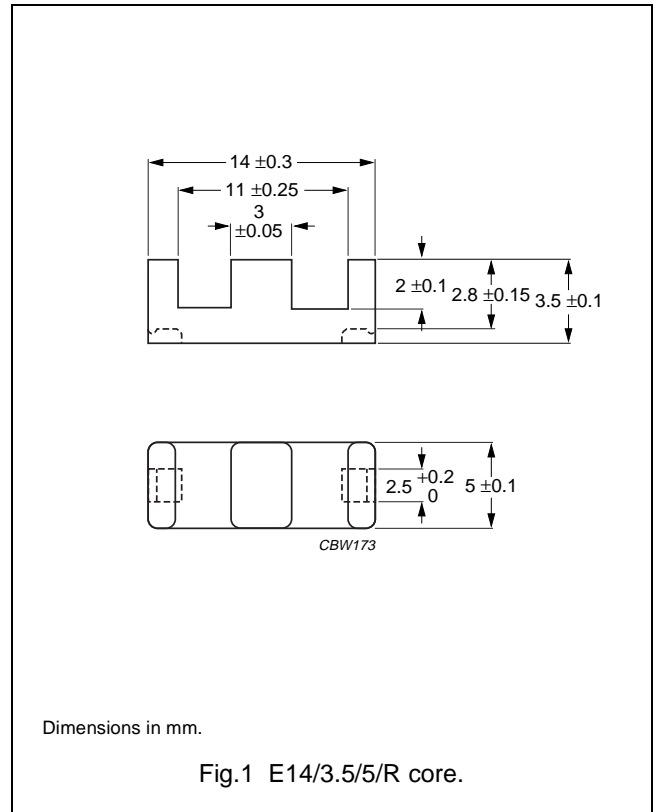
CORES

Effective core parameters of an E/PLT combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.15	mm ⁻¹
V_e	effective volume	230	mm ³
l_e	effective length	16.4	mm
A_e	effective area	14.2	mm ²
A_{min}	minimum area	10.9	mm ²
m	mass of E core half	≈ 0.6	g
m	mass of plate	≈ 0.5	g

Ordering information for plates

GRADE	TYPE NUMBER
3C90	PLT14/5/1.5/S-3C90
3C92 <small>des</small>	PLT14/5/1.5/S-3C92
3C93 <small>des</small>	PLT14/5/1.5/S-3C93
3C94	PLT14/5/1.5/S-3C94
3C96 <small>des</small>	PLT14/5/1.5/S-3C96
3F3	PLT14/5/1.5/S-3F3
3F35 <small>prot</small>	PLT14/5/1.5/S-3F35
3F4 <small>des</small>	PLT14/5/1.5/S-3F4
3F45 <small>prot</small>	PLT14/5/1.5/S-3F45
3E6	PLT14/5/1.5/S-3E6



Planar E cores and accessories

E14/3.5/5/R

Core halves for use in combination with a slotted plate (PLT/S)

A_L measured in combination with a slotted plate (PLT/S) clamping force for A_L measurements 10 ± 5 N; measurement coil as for E14/3.5/5.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	63 $\pm 3\%$	≈ 58	≈ 600	E14/3.5/5/R-3C90-A63-P
	100 $\pm 5\%$	≈ 92	≈ 300	E14/3.5/5/R-3C90-A100-P
	160 $\pm 8\%$	≈ 148	≈ 150	E14/3.5/5/R-3C90-A160-P
	1500 $\pm 25\%$	≈ 1380	≈ 0	E14/3.5/5/R-3C90
3C92 des	1130 $\pm 25\%$	≈ 1040	≈ 0	E14/3.5/5/R-3C92
3C93 des	1300 $\pm 25\%$	≈ 1200	≈ 0	E14/3.5/5/R-3C93
3C94	63 $\pm 3\%$	≈ 58	≈ 600	E14/3.5/5/R-3C94-A63-P
	100 $\pm 5\%$	≈ 92	≈ 300	E14/3.5/5/R-3C94-A100-P
	160 $\pm 8\%$	≈ 148	≈ 150	E14/3.5/5/R-3C94-A160-P
	1500 $\pm 25\%$	≈ 1380	≈ 0	E14/3.5/5/R-3C94
3C96 des	1350 $\pm 25\%$	≈ 1240	≈ 0	E14/3.5/5/R-3C96
3F3 prot	63 $\pm 3\%$	≈ 58	≈ 600	E14/3.5/5/R-3F3-A63-P
	100 $\pm 5\%$	≈ 92	≈ 300	E14/3.5/5/R-3F3-A100-P
	160 $\pm 8\%$	≈ 148	≈ 150	E14/3.5/5/R-3F3-A160-P
	1300 $\pm 25\%$	≈ 1200	≈ 0	E14/3.5/5/R-3F3
3F35 prot	1050 $\pm 25\%$	≈ 970	≈ 0	E14/3.5/5/R-3F35
3F4 des	63 $\pm 3\%$	≈ 58	≈ 600	E14/3.5/5/R-3F4-A63-P
	100 $\pm 5\%$	≈ 92	≈ 300	E14/3.5/5/R-3F4-A100-P
	160 $\pm 8\%$	≈ 148	≈ 150	E14/3.5/5/R-3F4-A160-P
	780 $\pm 25\%$	≈ 710	≈ 0	E14/3.5/5/R-3F4
3F45 prot	780 $\pm 25\%$	≈ 710	≈ 0	E14/3.5/5/R-3F45
3E6	6400 +40/-30%	≈ 5900	≈ 0	E14/3.5/5/R-3E6

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E14/3.5/5/R

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 = 100 kHz; \hat{B} = 100 mT; T = 100 °C	f = 100 kHz; \hat{B} = 200 mT; T = 100 °C	f = 400 kHz; \hat{B} = 50 mT; T = 100 °C	f = 500 kHz; \hat{B} = 50 mT; T = 100 °C
E14/R+PLT14/S-3C90	≥320	≤ 0.026	–	–	–
E14/R+PLT14/S-3C92	≥370	≤ 0.021	≤ 0.15	–	–
E14/R+PLT14/S-3C93	≥320	≤ 0.021 ⁽¹⁾	≤ 0.15 ⁽¹⁾	–	–
E14/R+PLT14/S-3C94	≥320	≤ 0.021	≤ 0.15	–	–
E14/R+PLT14/S-3C96	≥340	≤ 0.016	≤ 0.12	≤ 0.045	≤ 0.09
E14/R+PLT14/S-3F3	≥300	≤ 0.027	–	≤ 0.047	–
E14/R+PLT14/S-3F35	≥300	–	–	≤ 0.024	≤ 0.035
E14/R+PLT14/S-3F4	≥250	–	–	–	–
E14/R+PLT14/S-3F45	≥250	–	–	–	–

1. Measured at 140 °C.

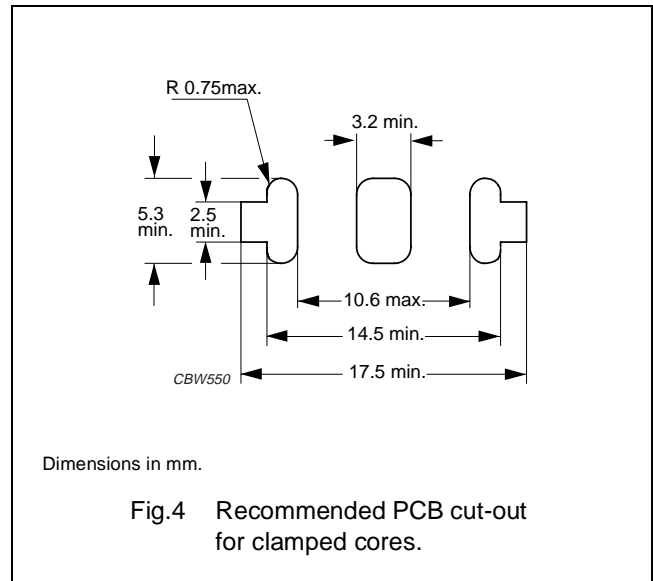
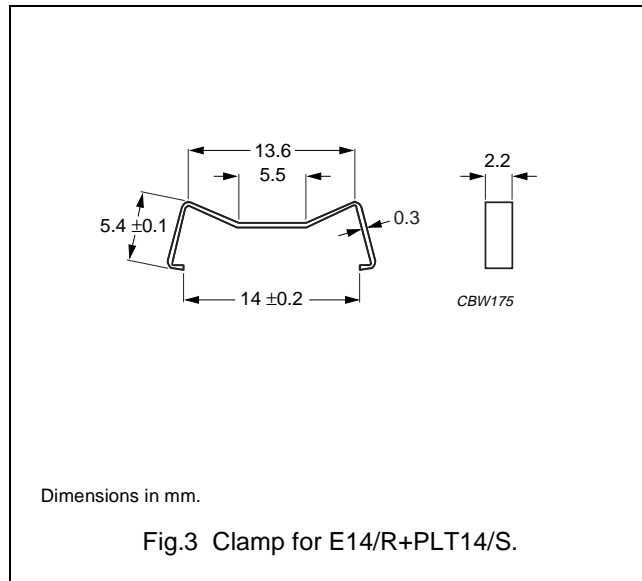
Properties of core sets under power conditions (continued)

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 500 kHz; \hat{B} = 100 mT; T = 100 °C	f = 1 MHz; \hat{B} = 30 mT; T = 100 °C	f = 1 MHz; \hat{B} = 50 mT; T = 100 °C	f = 3 MHz; \hat{B} = 10 mT; T = 100 °C
E14/R+PLT14/S-3C90	≥320	–	–	–	–
E14/R+PLT14/S-3C92	≥370	–	–	–	–
E14/R+PLT14/S-3C93	≥320	–	–	–	–
E14/R+PLT14/S-3C94	≥320	–	–	–	–
E14/R+PLT14/S-3C96	≥340	–	–	–	–
E14/R+PLT14/S-3F3	≥300	–	–	–	–
E14/R+PLT14/S-3F35	≥300	≤ 0.027	–	–	–
E14/R+PLT14/S-3F4	≥250	–	≤ 0.07	–	≤ 0.11
E14/R+PLT14/S-3F45	≥250	–	≤ 0.05	≤ 0.12	≤ 0.085

MOUNTING PARTS

General data and ordering information

ITEM	MATERIAL	FIGURE	TYPE NUMBER
Clamp	stainless steel (CrNi)	3	CLM-E14/PLT14



BLISTER TAPE AND REEL

For blister tape dimensions and construction and reel dimensions, see data sheet "E14/3.5/5".




DATA SHEET STATUS DEFINITIONS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
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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.