

DATA SHEET

E22/6/16/R Planar E cores

Product specification
Supersedes data of November 1997
File under Ferrite Ceramics, MA01

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Planar E cores

E22/6/16/R

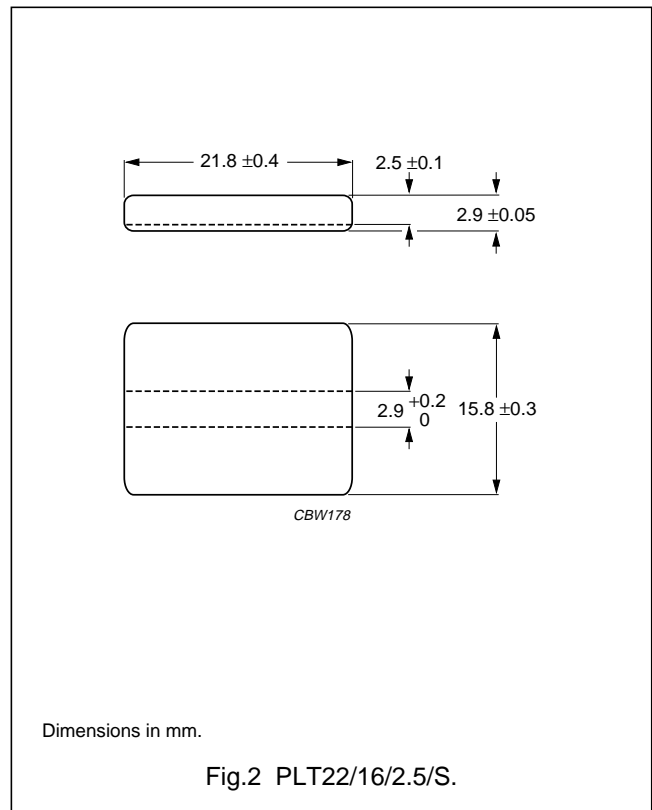
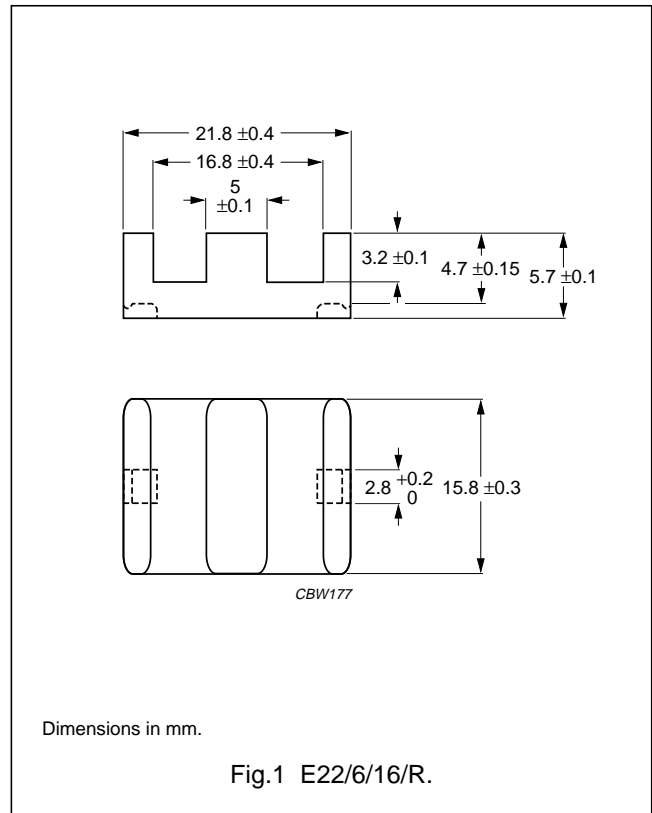
CORES

Effective core parameters of an E/PLT combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.324	mm ⁻¹
V_e	effective volume	2100	mm ³
l_e	effective length	26.1	mm
A_e	effective area	80.4	mm ²
A_{min}	minimum area	72.6	mm ²
m	mass of E core half	≈6.5	g
m	mass of plate	≈4	g

Ordering information for plates

GRADE	TYPE NUMBER
3C90	PLT22/16/2.5/S-3C90
3C94 <small>des</small>	PLT22/16/2.5/S-3C94
3C96 <small>prot</small>	PLT22/16/2.5/S-3C96
3F3	PLT22/16/2.5/S-3F3
3F35 <small>prot</small>	PLT22/16/2.5/S-3F35
3F4 <small>des</small>	PLT22/16/2.5/S-3F4
3E6	PLT22/16/2.5/S-3E6



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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, 20 ± 10 N; measurement coil as for E22/6/16.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	160 $\pm 3\%$	≈ 42	≈ 950	E22/6/R-3C90-A160-P
	250 $\pm 3\%$	≈ 66	≈ 550	E22/6/R-3C90-A250-P
	315 $\pm 3\%$	≈ 83	≈ 400	E22/6/R-3C90-A315-P
	400 $\pm 5\%$	≈ 106	≈ 280	E22/6/R-3C90-A400-P
	630 $\pm 8\%$	≈ 166	≈ 160	E22/6/R-3C90-A630-P
	6150 $\pm 25\%$	≈ 1620	≈ 0	E22/6/16/R-3C90
3C94 des	160 $\pm 3\%$	≈ 42	≈ 950	E22/6/R-3C94-A160-P
	250 $\pm 3\%$	≈ 66	≈ 550	E22/6/R-3C94-A250-P
	315 $\pm 3\%$	≈ 83	≈ 400	E22/6/R-3C94-A315-P
	400 $\pm 5\%$	≈ 106	≈ 280	E22/6/R-3C94-A400-P
	630 $\pm 8\%$	≈ 166	≈ 160	E22/6/R-3C94-A630-P
	6150 $\pm 25\%$	≈ 1620	≈ 0	E22/6/16/R-3C94
3C96 prot	5450 $\pm 25\%$	≈ 1440	≈ 0	E22/6/16/R-3C96
3F3	160 $\pm 3\%$	≈ 42	≈ 950	E22/6/R-3F3-A160-P
	250 $\pm 3\%$	≈ 66	≈ 550	E22/6/R-3F3-A250-P
	315 $\pm 3\%$	≈ 83	≈ 400	E22/6/R-3F3-A315-P
	400 $\pm 5\%$	≈ 106	≈ 280	E22/6/R-3F3-A400-P
	630 $\pm 8\%$	≈ 166	≈ 160	E22/6/R-3F3-A630-P
	5000 $\pm 25\%$	≈ 1320	≈ 0	E22/6/16/R-3F3
3F35 prot	4100 $\pm 25\%$	≈ 1080	≈ 0	E22/6/16/R-3F35
3F4 des	160 $\pm 3\%$	≈ 42	≈ 950	E22/6/R-3F4-A160-P
	250 $\pm 3\%$	≈ 66	≈ 550	E22/6/R-3F4-A250-P
	315 $\pm 3\%$	≈ 83	≈ 400	E22/6/R-3F4-A315-P
	400 $\pm 5\%$	≈ 106	≈ 280	E22/6/R-3F4-A400-P
	630 $\pm 8\%$	≈ 166	≈ 160	E22/6/R-3F4-A630-P
	2900 $\pm 25\%$	≈ 770	≈ 0	E22/6/16/R-3F4
3E6	26000 +40/-30%	≈ 6900	≈ 0	E22/6/16/R-3E6

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Properties of core sets 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 = 400 kHz; \hat{B} = 50 mT; T = 100 °C
E18/R+PLT18/S-3C90	≥320	≤0.235	–	–
E18/R+PLT18/S-3C94	≥320	≤0.180	≈0.88	≈0.39
E18/R+PLT18/S-3C96	≥320	≈0.13	≈0.62	≈0.28
E18/R+PLT18/S-3F3	≥300	≤0.230	–	≤0.40
E18/R+PLT18/S-3F35	≥300	≤0.230	–	≈0.20
E18/R+PLT18/S-3F4	≥250	–	–	–

Properties of core sets under power conditions (continued)

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 500 kHz; \hat{B} = 50 mT; T = 100 °C	f = 500 kHz; \hat{B} = 100 mT; T = 100 °C	f = 1 MHz; \hat{B} = 30 mT; T = 100 °C	f = 3 MHz; \hat{B} = 10 mT; T = 100 °C
E18/R+PLT18/S-3C90	≥320	–	–	–	–
E18/R+PLT18/S-3C94	≥320	–	–	–	–
E18/R+PLT18/S-3C96	≥320	–	–	–	–
E18/R+PLT18/S-3F3	≥300	–	–	–	–
E18/R+PLT18/S-3F35	≥300	≈0.34	≈2.50	–	–
E18/R+PLT18/S-3F4	≥250	–	–	≤0.41	≤0.66

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MOUNTING PARTS

General data and ordering information

ITEM	MATERIAL	FIGURE	TYPE NUMBER
Clamp	stainless steel (CrNi)	3	CLM-E22/PLT22

