

Planar E cores

E18/4/10/R

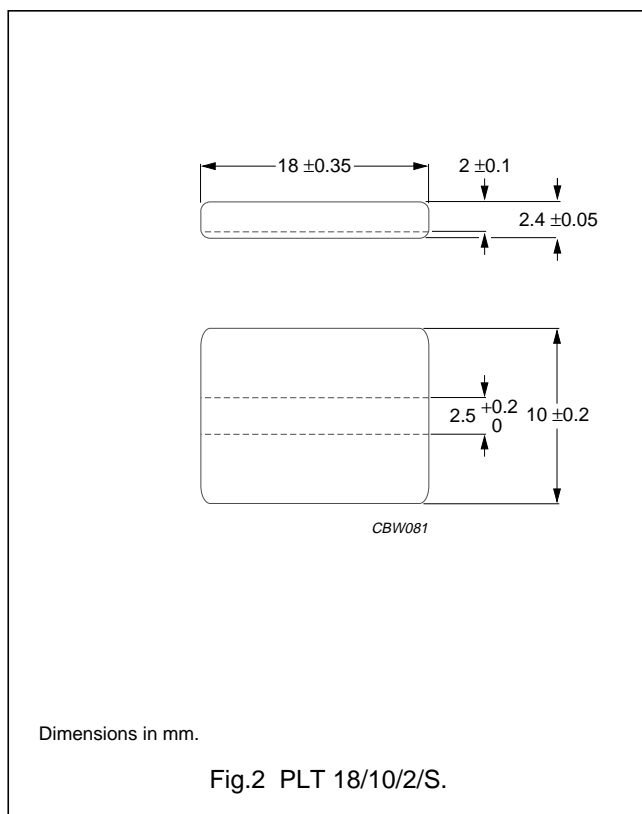
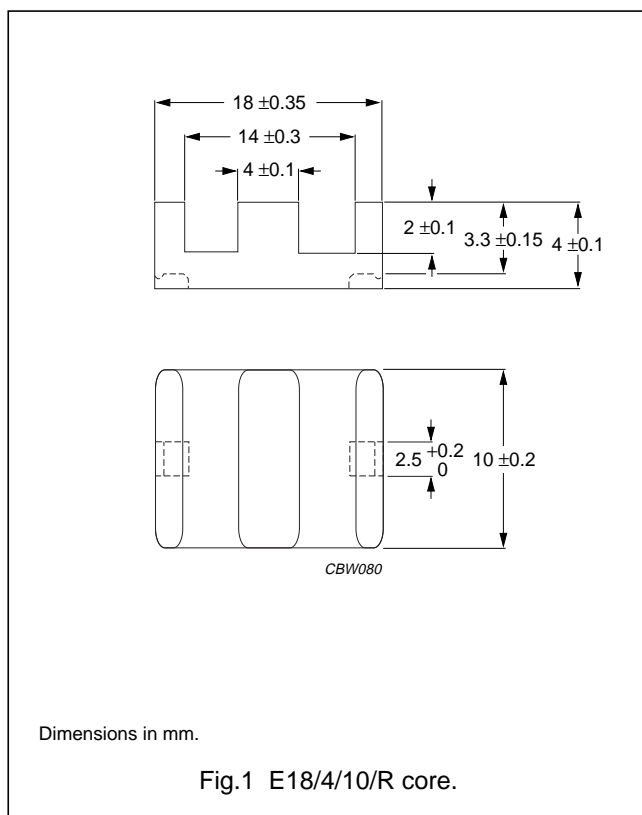
CORES

Effective core parameters of an E/PLT combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	0.498	mm ⁻¹
V_e	effective volume	830	mm ³
l_e	effective length	20.3	mm
A_e	effective area	40.8	mm ²
A_{min}	minimum area	35.9	mm ²
m	mass of E core half	≈2.4	g
m	mass of plate	≈1.7	g

Ordering information for plates

GRADE	TYPE NUMBER
3F3 <small>des</small>	PLT18/10/2/S-3F3
3F4 <small>des</small>	PLT18/10/2/S-3F4
3E6 <small>des</small>	PLT18/10/2/S-3E6



Planar E cores

E18/4/10/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 10 ± 5 N; measurement coil as for E18/4/10.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3F3 <small>des</small>	$100 \pm 3\%$	≈ 41	≈ 870	E18/4/R-3F3-A100-P
	$160 \pm 3\%$	≈ 65	≈ 470	E18/4/R-3F3-A160-P
	$250 \pm 5\%$	≈ 102	≈ 240	E18/4/R-3F3-A250-P
	$315 \pm 8\%$	≈ 129	≈ 170	E18/4/R-3F3-A315-P
	$3100 \pm 25\%$	≈ 1270	≈ 0	E18/4/10/R-3F3
3F4 <small>des</small>	$100 \pm 3\%$	≈ 41	≈ 870	E18/4/R-3F4-A100-P
	$160 \pm 3\%$	≈ 65	≈ 470	E18/4/R-3F4-A160-P
	$250 \pm 5\%$	≈ 102	≈ 240	E18/4/R-3F4-A250-P
	$315 \pm 8\%$	≈ 129	≈ 170	E18/4/R-3F4-A315-P
	$1800 \pm 25\%$	≈ 740	≈ 0	E18/4/10/R-3F4
3E6 <small>des</small>	$15500 +40/-30\%$	≈ 6400	≈ 0	E18/4/10/R-3E6

Properties of E/PLT combinations under power conditions

CORE COMBINATION	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 = 400 kHz; $\hat{B} = 50$ 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-3F3	≥ 300	≤ 0.090	≤ 0.16	–	–
E18/R+PLT18/S-3F4	≥ 250	–	–	≤ 0.16	≤ 0.26

MOUNTING PARTS

General data and ordering information

ITEM	MATERIAL	FIGURE	TYPE NUMBER
Clamp	stainless steel (CrNi)	3	CLM-E18/PLT18

