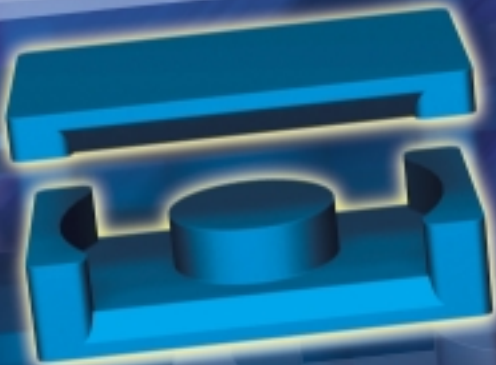




Ferrites

New Planar Cores for Power Applications

PLANAR



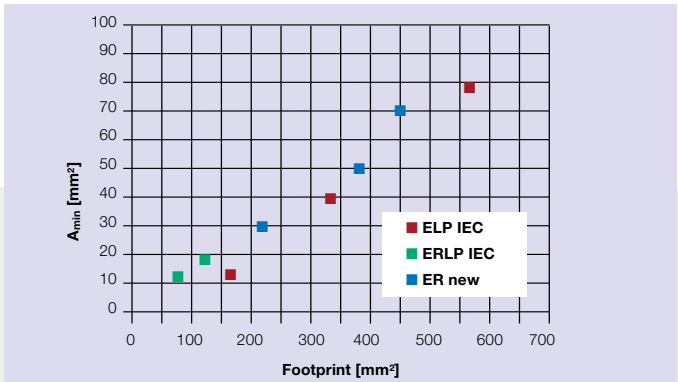
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New Planar ER Cores

Features

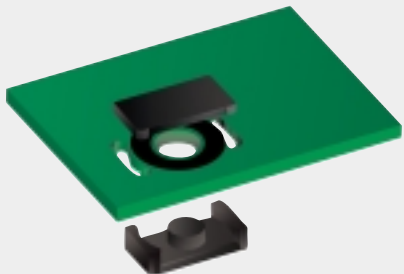
- Recommended for integrated and stand alone designs
- Core set height below 8 mm
- Winding window height of 3.2 mm for multilayer PCB designs
- EI combination available to minimize stray-flux influence at air gap
- Designed for high throughput power
- Three sizes available that close the gaps between the ELP cores



Advantages of planar ER cores

- Minimized winding length
- Smaller overall footprint (core & winding)
- Less EMI

Assembly example
for integrated design:





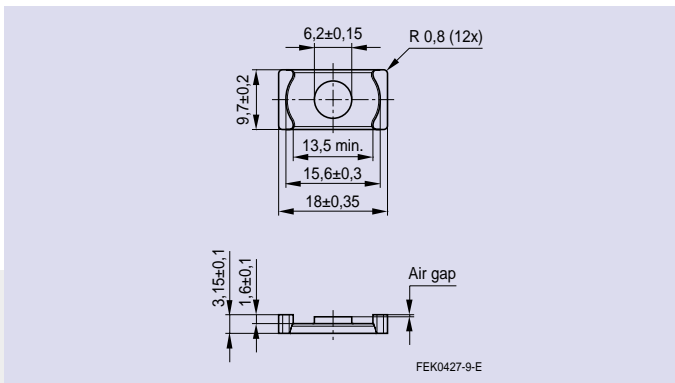
ER18/3/10

Specification (Preliminary Data)

Magnetic characteristics (per set)

$\Sigma L/A$	0.730 mm ⁻¹
l_e	22.1 mm
A_e	30.2 mm ²
A_{min}	30.1 mm ²
V_e	667 mm ³

Approx. weight 3.5 g/set



Material	A_L value [nH] ¹⁾	μ_e	A_{L1min} [nH] ²⁾	P_{Vmax} [W/Set]	Ordering code (per piece) B66480-
N87	2300 ± 25 %	1340	2100	0.35 (200 mT, 100 kHz, 100 °C)	-G0000X187
N97	2300 ± 25 %	1340	2100	0.28 (200 mT, 100 kHz, 100 °C)	-G0000X197
N92	1800 ± 25 %	1050	2600	0.39 (200 mT, 100 kHz, 100 °C)	-G0000X192
N49	1800 ± 25 %	1050	1000	0.10 (50 mT, 500 kHz, 100 °C)	-G0000X149

¹⁾ Measurement parameter: $f = 10$ kHz / $B = 0.25$ mT / 100 turns / room temperature

²⁾ Measurement parameter: $f \leq 10$ kHz / $B = 320$ mT / $T = 100$ °C

Further information:

Internet: www.epcos.com



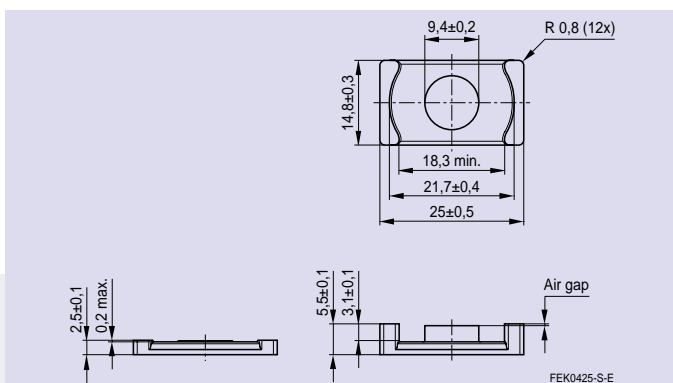
ER25/6/15 with I25/3/15

Specification (Preliminary Data)

Magnetic characteristics (per ER&I set)

$\Sigma L/A$	0.400 mm ⁻¹
l_e	28.1 mm
A_e	70.4 mm ²
A_{min}	69.4 mm ²
V_e	1980 mm ³

Approx. weight 11.5 g/set



Material	A_L value [nH] ¹⁾	μ_e	A_{L1min} [nH] ²⁾	P_{Vmax} [W/Set]	Ordering code (per piece) B66484-
N87	4600 ± 25%	1460	3900	1.05 (200 mT, 100 kHz, 100 °C)	-G0000X187 (ER core) -P0000X187 (I core)
N97	4600 ± 25%	1460	3900	0.83 (200 mT, 100 kHz, 100 °C)	-G0000X197 (ER core) -P0000X197 (I core)
N92	3400 ± 25%	1080	4700	1.14 (200 mT, 100 kHz, 100 °C)	-G0000X192 (ER core) -P0000X192 (I core)
N49	3400 ± 25%	1080	1900	0.30 (50 mT, 500 kHz, 100 °C)	-G0000X149 (ER core) -P0000X149 (I core)

¹⁾ Measurement parameter: $f = 10$ kHz/ $B = 0.25$ mT/ 100 turns/ room temperature

²⁾ Measurement parameter: $f \leq 10$ kHz/ $B = 320$ mT/ $T = 100$ °C

Further information:

Internet: www.epcos.com



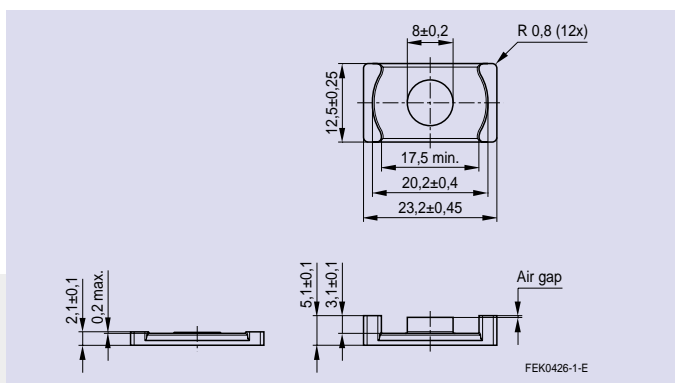
ER23/5/13 with I23/2/13

Specification (Preliminary Data)

Magnetic characteristics (per ER&I set)

$\Sigma L/A$	0.531 mm ⁻¹
l_e	26.6 mm
A_e	50.2 mm ²
A_{min}	50 mm ²
V_e	1340 mm ³

Approx. weight 6.4 g/set



Material	A_L value [nH] ¹⁾	μ_e	A_{L1min} [nH] ²⁾	P_{Vmax} [W/Set]	Ordering code (per piece) B66482-
N87	3400 ± 25%	1430	3000	0.70 (200 mT, 100 kHz, 100 °C)	-G0000X187 (ER core) -P0000X187 (I core)
N97	3400 ± 25%	1430	3000	0.56 (200 mT, 100 kHz, 100 °C)	-G0000X197 (ER core) -P0000X197 (I core)
N92	2600 ± 25%	1100	3500	0.77 (200 mT, 100 kHz, 100 °C)	-G0000X192 (ER core) -P0000X192 (I core)
N49	2600 ± 25%	1100	1400	0.21 (50 mT, 500 kHz, 100 °C)	-G0000X149 (ER core) -P0000X149 (I core)

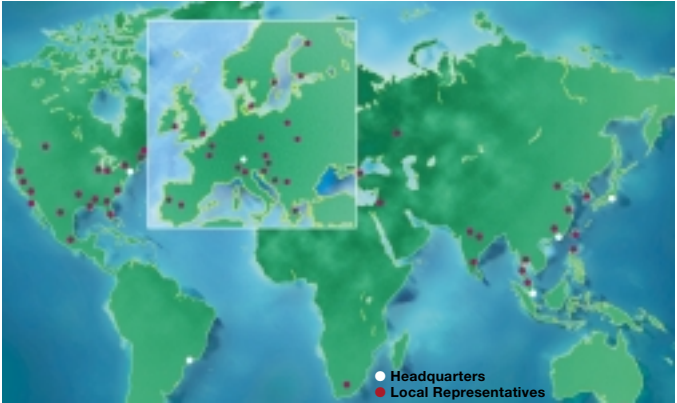
¹⁾ Measurement parameter: $f = 10$ kHz/ $B = 0.25$ mT/ 100 turns/ room temperature

²⁾ Measurement parameter: $f \leq 10$ kHz/ $B = 320$ mT/ $T = 100$ °C

Further information:

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