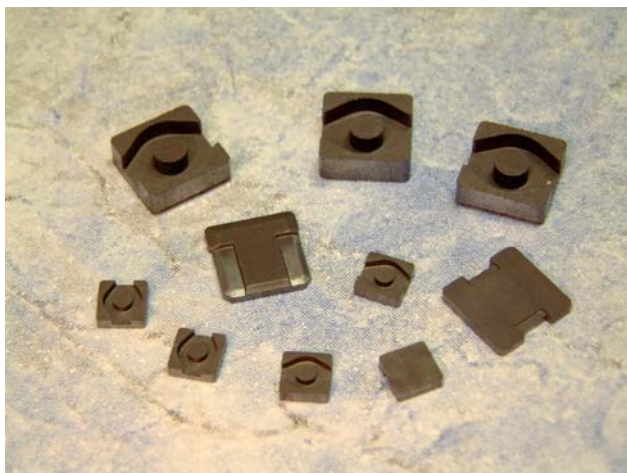


SMD (surface mount device) inductors

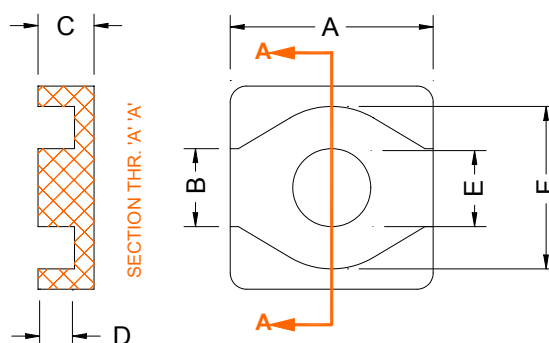


SMD inductors manufactured in DuraFlux materials offer low profile, small sized, high energy core solutions for today's power hungry application. Using flat wound coils allows for extreme currents typically found in today's modern notebook processors and similar small sized electronic devices. The high dc biasing ability of DuraFlux allows for a minimum drop off in inductance while still maintaining a high level of efficiency.

SMD Inductor cores are assembled with an ER core and I core. The I core forms the base of the inductor where the coil winding is terminated. The unique design of the core reduces any flux leakage to a minimum while still maintaining maximum heat dissipation from the core surface.

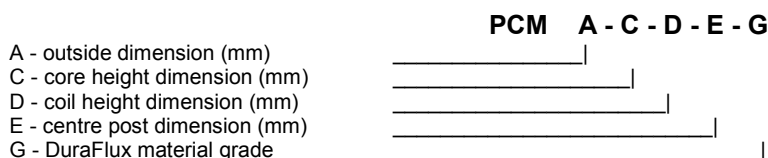


ER CORES



ER Core - Part Numbers

Dimensions which are fixed are dependant on available tooling. Dimensions which are variable can be adjusted during set-up. The ER core part number defines the outside dimensions, core height, coil window, centre post dimension and material grade. ER cores are also available with a chamfered edge for part orientation during assembly.



Size: 6.6 x 6.6mm - 180° series

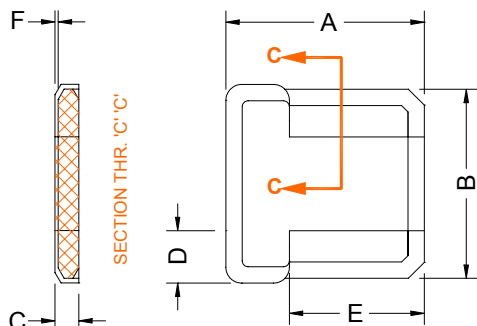
Part Number	A (fixed)	B (fixed)	C (variable)	D (variable)	E (fixed)	F (fixed)	G (material)
PCM 6.4-3.7-2.6-2.4-60	6.4	2.4	3.70	2.60	2.4	5.1	DF60
PCM 6.4-2.0-1.0-2.1-48	6.4	2.4	2.00	1.00	2.1	5.1	DF48
PCM 6.4-1.9-0.9-2.4-48	6.4	2.4	1.90	0.90	2.4	5.1	DF48
PCM 6.4-1.7-0.9-2.4-48	6.4	2.4	1.70	0.90	2.4	5.1	DF48
PCM 6.4-1.3-0.5-2.4-48	6.4	2.4	1.30	0.50	2.4	5.1	DF48

Size: 12.7 x 12.7mm - 180° series

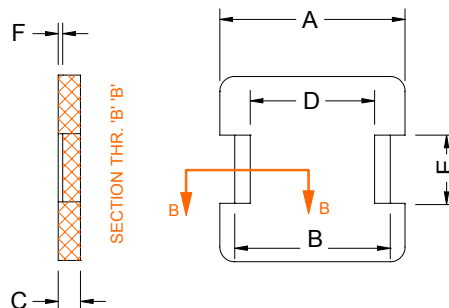
Part Number	A (fixed)	B (fixed)	C (variable)	D (variable)	E (fixed)	F (fixed)	G (material)
PCM 12.5-4.5-3.0-4.8-48	12.5	4.8	4.50	3.00	4.8	10.4	DF48
PCM 12.5-4.15-3.05-4.8-60	12.5	4.8	4.15	3.05	4.8	10.4	DF60
PCM 12.5-4.0-2.9-4.8-60	12.5	4.8	4.00	2.90	4.8	10.4	DF60
PCM 12.5-3.95-2.45-4.8-60	12.5	4.8	3.95	2.45	4.8	10.4	DF60
PCM 12.5-3.9-1.8-4.8-60	12.5	4.8	3.90	1.80	4.8	10.4	DF60
PCM 12.5-3.7-2.55-4.8-48	12.5	4.8	3.70	2.55	4.8	10.4	DF48
PCM 12.5-3.55-2.25-4.8-60	12.5	4.8	3.55	2.25	4.8	10.4	DF60
PCM 12.5-3.35-2.05-4.8-60	12.5	4.8	3.35	2.05	4.8	10.4	DF60
PCM 12.5-2.5-1.4-4.8-48	12.5	4.8	2.50	1.40	4.8	10.4	DF48

Typical part numbers

I CORES



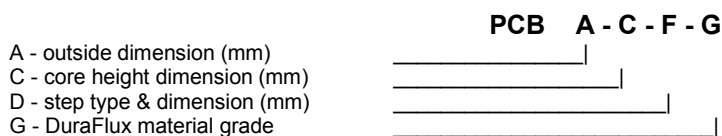
T Shape



H Shape

I Core - Part Numbers

The I core part number defines the outside dimensions, core height, step type and material grade. I cores are available in two standard shapes as indicated with a 'T' or 'H' symbol within the part number. Custom step sizes are available with minimum tooling changes required. Core heights are adjustable during set-up. Cores made from DF48 grade material do not require coating. Maximum breakdown as measured from the I core step to step is > 120Vac. Cores made from DF60 grade material require an epoxy coating layer of less than 0.1mm in thickness on the outside surface of the I core so as to ensure a breakdown voltage of > 120Vac. All cores are treated for oxidation when exposed to normal environments.



Size: 6.6 x 6.6mm - 180° series

Shape	Part Number	A (fixed)	B (fixed)	C (variable)	D (fixed)	E (fixed)	F (fixed)	G (material)
T	PCB 6.4-0.95-0.15T-48	6.4	6.2	0.95	1.9	4.3	0.2	DF48

Size: 12.7 x 12.7mm - 180° series

Shape	Part Number	A (fixed)	B (fixed)	C (variable)	D (fixed)	E (fixed)	F (fixed)	G (material)
H	PCB 12.5-1.5-0.3H1-48	12.5	10.5	1.50	8.4	4.6	0.3	DF48
T	PCB 12.5-1.7-0.3T-60	12.5	11.9	1.70	3.3	8.5	0.3	DF60
T	PCB 12.5-1.2-0.3T-60	12.5	11.9	1.20	3.3	8.5	0.3	DF60
T	PCB 12.5-1.95-0.3T-60	12.5	11.9	1.95	3.3	8.5	0.3	DF60
T	PCB 12.5-2.1-0.5T-60	12.5	11.9	2.10	3.3	8.5	0.5	DF60
T	PCB 12.5-1.9-0.5T-48	12.5	11.9	1.90	3.3	8.5	0.5	DF48
T	PCB 12.5-1.6-0.3T-60	12.5	11.9	1.60	3.3	8.5	0.3	DF60
T	PCB 12.5-1.8-0.3T-60	12.5	11.9	1.80	3.3	8.5	0.3	DF60
H	PCB 12.5-1.0-0.3H1-48	12.5	10.5	1.00	8.4	4.6	0.3	DF48

Typical part numbers

SMD (surface mount device) inductors



Electrical Specification

Size: 6.6 x 6.6mm - 180° series

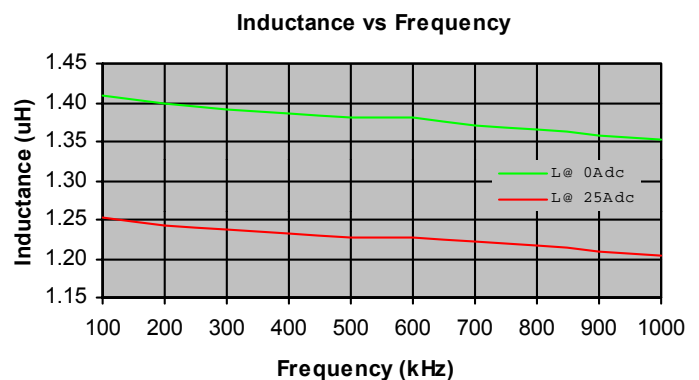
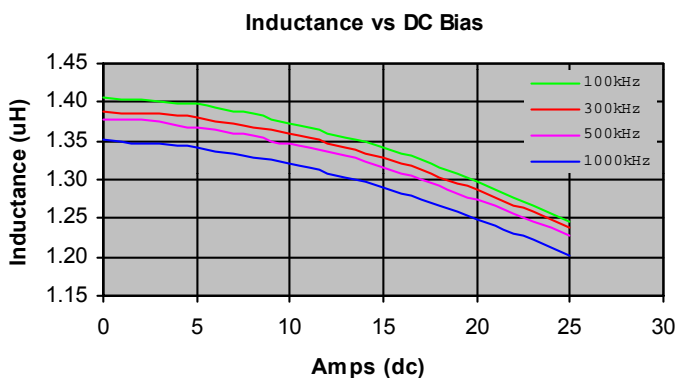
ER core Part Number	I core Part Number	Max. Height (mm)	Turns	Inductance (µH)	Max. Amps (Adc)
PCM 6.4-3.7-2.6-2.4-60	PCM 6.4-3.7-2.6-2.4-60	7.40	4½	0.40	0.35 µH Typ. @ 20
PCM 6.4-2.0-1.0-2.1-48	PCB 6.4-0.95-0.15T-48	2.95	2½	0.22	0.19 µH Typ. @ 17

Size: 12.7 x 12.7mm - 180° series

ER core Part Number	I core Part Number	Max. Height (mm)	Turns	Inductance (µH)	Max. Amps (Adc)
PCM 12.5-4.5-3.0-4.8-48	PCB 12.5-1.5-0.3H1-48	6.00	1½	0.18	0.14 µH Typ. @ 65
PCM 12.5-4.5-3.0-4.8-48	PCB 12.5-1.5-0.3H1-48		2½	0.40	0.32 µH Typ. @ 50
PCM 12.5-4.5-3.0-4.8-48	PCB 12.5-1.5-0.3H1-48		3½	0.80	0.64 µH Typ. @ 40
* PCM 12.5-4.5-3.0-4.8-48	PCB 12.5-1.5-0.3H1-48		4½	1.40	1.12 µH Typ. @ 30
PCM 12.5-4.5-3.0-4.8-48	PCB 12.5-1.5-0.3H1-48		5½	2.00	1.60 µH Typ. @ 26
PCM 12.5-4.5-3.0-4.8-48	PCB 12.5-1.5-0.3H1-48		6½	2.80	2.20 µH Typ. @ 23
PCM 12.5-4.15-3.05-4.8-60	PCB 12.5-1.7-0.3T-60	5.85	3½	0.90	0.77 µH Typ. @ 25
PCM 12.5-4.0-2.9-4.8-60	PCB 12.5-1.2-0.3T-60	5.20	4½	1.50	1.28 µH Typ. @ 18
PCM 12.5-3.95-2.45-4.8-60	PCB 12.5-1.95-0.3T-60	5.90	2½	0.50	0.43 µH Typ. @ 40
PCM 12.5-3.9-1.8-4.8-60	PCB 12.5-2.1-0.5T-60	6.00	1½	0.30	0.26 µH Typ. @ 40
PCM 12.5-3.7-2.55-4.8-48	PCB 12.5-1.9-0.5T-48	5.60	1½	0.15	0.13 µH Typ. @ 40
PCM 12.5-3.55-2.25-4.8-60	PCB 12.5-1.6-0.3T-60	5.15	3½	1.00	0.85 µH Typ. @ 23
PCM 12.5-3.35-2.05-4.8-60	PCB 12.5-1.8-0.3T-60	5.15	2½	0.60	0.51 µH Typ. @ 27

SMD performance graphs

ER core (PCM 12.5-4.5-3.0-4.8-48) and I core (PCB 12.5-1.5-0.3H1-48) were assembled with a 4½ turn flat coil as indicated (*) above. The inductance verses dc bias and frequency graphs were tested with 100kHz, 0.1Vrms at 25°C ambient.



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