Pulse
a YAGEO company

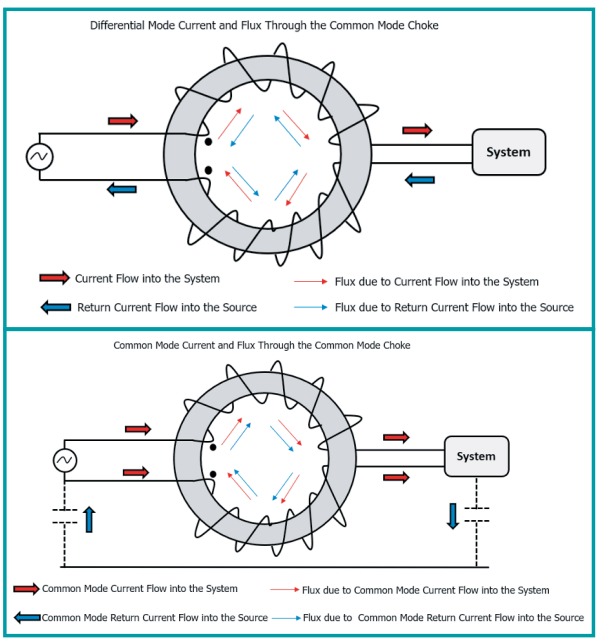
AEC-Q200 · IATF 16949 · MSL · ROHS COMPLIANT

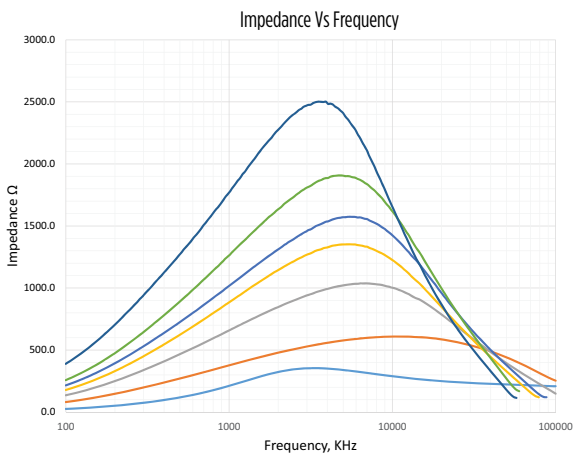
COMMON MODE CHOKE OVERVIEW

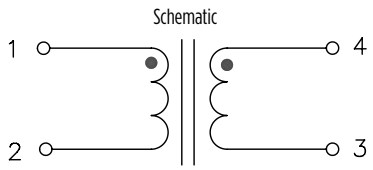
SURFACE MOUNT AND THROUGH-HOLE SOLUTIONS

Common Mode Chokes, as the name implies, are designed to attenuate and filter common mode noise within an electric system. The key parameters for a common mode choke are the current rating (to ensure the part does not overheat within the application), the impedance versus frequency (to ensure it is optimized to attenuate the desired frequencies), the isolation voltage (to ensure it meets board level requirements between the line and neutral phases) and safety isolation (to ensure it meets the safety requirements of the end-application). It is important to remember that common mode chokes cannot saturate in the application (under normal use) as they are designed to ensure that the line and return currents are balanced.

Pulse catalog parts are available in surface mount and through-hole terminations and toroid and shape core constructions for currents ranging from mA to 40Arms. Custom solutions are available.







COMMON MODE CHOKE OVERVIEW

SURFACE MOUNT AND THROUGH-HOLE SOLUTIONS

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PRODUCT OVERVIEW: SMT COMMON MODE CHOKES

Platform Name		Platform Size (Max) L (mm)	W (mm)	H (mm)	SRF (typical)	Impedance @ SRF (typical)	Current Rating (Arms) 0A 5A 10A 15A 20A 25A 30A 35A 40A
	PA4339	7.5	6.5	3.8	77 MHz to 200 MHz	0.1 kΩ to 0.9 kΩ	
	Shasta	9.1	8.9	3.8 7.9	6 MHz to 15 MHz	0.45 kΩ to 1.5 kΩ	
	PoleCat	13	13	5.6 8.6	2 MHz to 20 MHz	0.20 kΩ to 8.2 kΩ	
	PAC6006	15.5	13.5	13.5	3.4 MHz to 11 MHz	0.4 kΩ to 2.5 kΩ	
	LCCI-37	16.4	14.2	8.9	0.2 MHz to 3 MHz	1.4 kΩ to 6.5 kΩ	
	LCCI-44	18.2	15	7.6 10.0	2 MHz to 9 MHz	0.90 kΩ to 1.8 kΩ	
	LCCI-50	19.6	17	9.9	2.0 MHz to 18 MHz	0.20 kΩ to 27.5 kΩ	
	PA5140	19.5	19.8	19.2	2.8 MHz to 3.7 MHz	2.2 kΩ to 5.5 kΩ	
	Makeni	21.1	19.1	11.2	4.0 MHz to 6 MHz	0.25 kΩ to 0.6 kΩ	
	PH9407	24.9	21.6	16.9	1.4 MHz to 1.8 MHz	0.7 kΩ to 2.4 kΩ	
	PA5141	23.5	24.3	22.7	2.1 MHz to 3.4 MHz	1.1 kΩ to 4.2 kΩ	
	HCCI-68	28	25.4	10	4.0 MHz	3.1 kΩ	
	HCCI-80	31	25.4	12.7	2.5 MHz to 4 MHz	0.9 kΩ to 6.4 kΩ	
	PH9408	30.5	27	18	1.1 MHz to 1.3 MHz	0.5 kΩ to 5.5 kΩ	

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PRODUCT OVERVIEW: THT COMMON MODE CHOKES

Platform Name		Platform Size (Max) L (mm)	W (mm)	H (mm)	SRF (typical)	Impedance @ SRF (typical)	Current Rating (Arms) 0A 5A 10A 15A 20A
	PA3747	19.3	18.2	23	.12 MHz to 1.2 MHz	33 kΩ to 81 kΩ	
	PA4053	21	17.4	18	.15 MHz to 2.3 MHz		
	PH9455	12,6	10	28	.13 MHz to 60 MHz	1.5 kΩ to 37 kΩ	
	PA4040*	31	25	17	0.5 MHz to 1.75 MHz	5.3 kΩ to 14 kΩ	
	PA441x	43	26	43	.9 MHz to 2.0 MHz	14 kΩ to 29 kΩ	
	FE2X	18.2	15	7.6 10.0	.15 MHz to 1.75 MHz		
	FE3X**	18.2	15	7.6 10.0	.2 MHz		

* PA4040 is an integrated CM and DM choke
**FE3X is a three-winding CM choke for 3-phase systems

COMMON MODE CHOKE OVERVIEW

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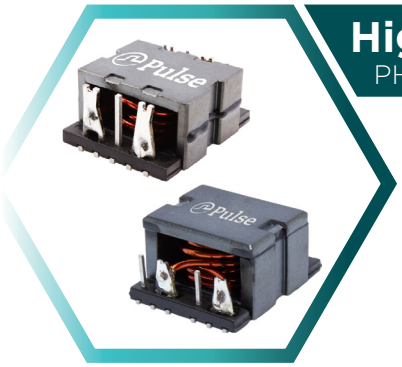
High Impedance Density Solution

PAC6006

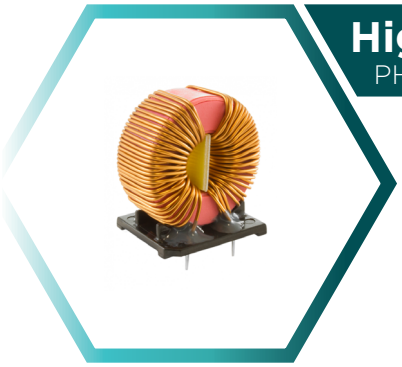
- Cost Effective EP13 Platform (16x14x14mm)
- Current Rating: 6A to 17Arms
- SRF: 3.4MHz to 11MHz
- Impedance: Up to 25kΩ



High Current SMT CM Choke Solutions

PH9407, PH9408

- Two platform sizes
  25x22x17mm & 31x27x18mm
- Current Rating: Up to 36Arms
- SRF: >1MHz
- Impedance: Up to 5.5kΩ



High Impedance Through Hole Solution

PH9455

- High Impedance Amorphous Core
- Small Footprint (12.6x10x28mm)
- Current Rating: 3A to 22Arms
- SRF: Up to 16MHz
- Impedance: 2kΩ to 71kΩ

Other Great Products from Pulse Electronics

Power Inductors

Switch Mode Transformers

Isolation Transformers

Current Sense Magnetics

Common Mode Chokes