Common Mode for Power Line, Through-Hole Type, SH Series



Overview

The KEMET SH coils are common mode chokes with a wide variety of characteristics. These through-hole toroidal coils are suitable for noise countermeasure in DC power line circuits.

Applications

- · Audio-visual equipment
- · Office automation equipment
- · Digital appliances
- Home appliances
- · Power supplies

Benefits

- · Nickel-Zinc (Ni-Zn) ferrite core
- Operating temperature range from -25°C to +80°C (except SH-132 and SH-432: -25°C to +60°C)

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- UL94 V-0 flame retardant rated terminal base
- RoHS Compliant

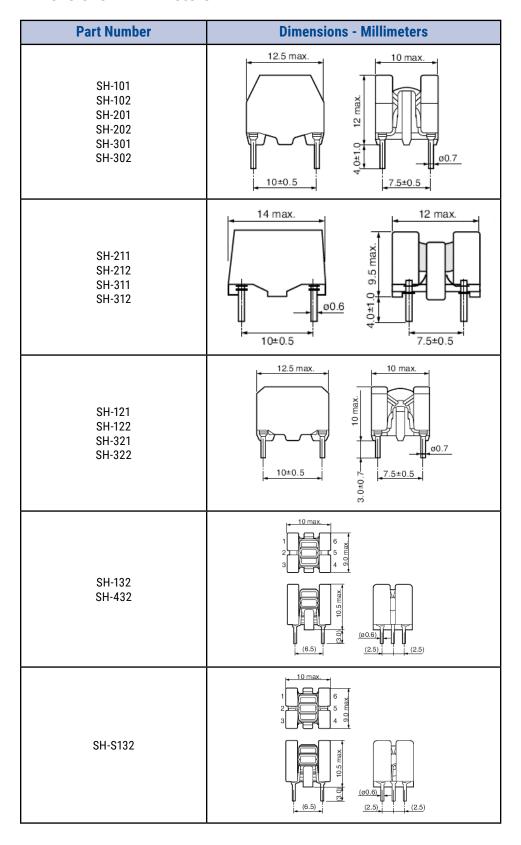


Part Number System

SH-	S	1	3	2
Series	Number of Lines	Core Size	Terminal Shape Type	Internal Management Code
SH-	Blank = For 2 lines S = For 3 lines	1 = 7.6 mm 2 = 7.6 mm 3 = 7.6 mm 4 = 5.4 mm	0 1 2 3	1 2 3



Dimensions - Millimeters





Environmental Compliance

All KEMET DC line filters are RoHS Compliant.



Performance Characteristics

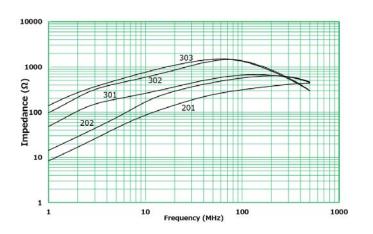
Item	Performance Characteristics		
Rated Voltage Range	50 - 150 VDC		
Rated Current Range	1 – 3 A		
Rated Inductance Range	0.35 – 30.00 μH minimum		
Inductance Measurement Condition	100 kHz, 1 mA		
Rated DC Resistance Range	10 – 81 mΩ maximum		
Operating Temperature Range	-25°C to +80°C (not including self temperature rise) Except SH-132 and SH-432: -25°C to +60°C (not including self temperature rise)		

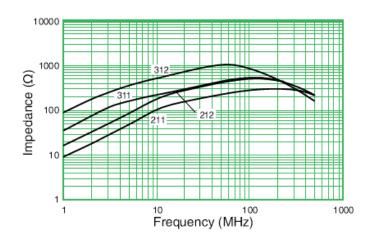
Table 1 - Ratings & Part Number Reference

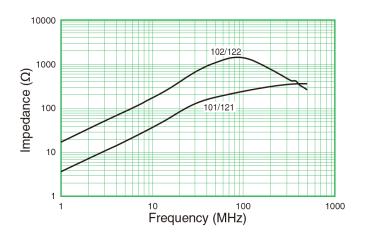
Part Number	Rated Voltage DC (V)	Rated Current (A)	Inductance (µH) Minimum	DC Resistance/ Line (mΩ) Maximum	Number of Lines	Weight (g)
SH-101	150	3.0	0.35	16	For 2 lines	1.63
SH-102	150	3.0	1.50	26	For 2 lines	1.67
SH-201	150	3.0	0.50	16	For 2 lines	1.63
SH-202	150	3.0	1.50	20	For 2 lines	1.65
SH-301	150	3.0	3.20	22	For 2 lines	1.71
SH-302	150	3.0	7.50	26	For 2 lines	1.74
SH-303	50	2.1	15.00	10	For 2 lines	1.70
SH-211	150	3.0	0.50	18	For 2 lines	1.74
SH-212	150	3.0	1.50	23	For 2 lines	1.78
SH-311	150	3.0	3.20	25	For 2 lines	1.74
SH-312	150	3.0	7.50	30	For 2 lines	1.78
SH-121	50	3.0	0.35	11	For 2 lines	1.53
SH-122	50	3.0	1.50	20	For 2 lines	1.63
SH-321	50	3.0	3.50	14	For 2 lines	1.53
SH-322	50	3.0	7.50	20	For 2 lines	1.58
SH-132	50	2.4	2.60	51	For 2 lines	1.10
SH-432	50	2.4	30.00	51	For 2 lines	1.12
SH-S132	50	1.0	1.70	81	For 3 lines	1.00

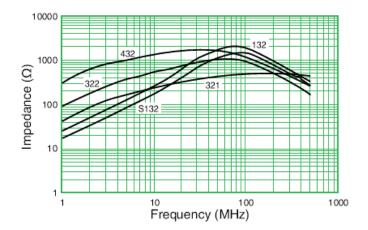


Frequency Characteristics









Packaging

Part Type	Packaging Type	Pieces per Box	
SH-*0* Terminal Shape 0	Bulk	3,000	
SH-*1* Terminal Shape 1	Duik		
SH-*2* Terminal Shape 2	Tray	1,100	
SH-*3* Terminal Shape 3	Bulk	3,000	



Handling Precautions

Precautions for product storage

DC Line Filters should be stored in normal working environments. While the chokes themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage.

KEMET recommends that maximum storage temperature not exceed 40°C and maximum storage humidity not exceed 70% relative humidity. Atmospheres should be free of chlorine and sulfur bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Do not store near strong magnetic fields, as this might magnetize the product.

For optimized solderability, DC line filter stock should be used promptly, preferably within six months of receipt.

Product temperature rise values

The values listed for temperature rise are the result of self-heating in wires when the rated current (commercial frequency) is applied. When using, check and evaluate the value of the core temperature rise under actual operating conditions.

Export Control

For customers in Japan

For products that are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

For customers outside Japan

DC Line Filters should not be used or sold for use in the development, production, stockpiling or utilization of any conventional weapons or mass-destructive weapons (nuclear weapons, chemical or biological weapons, or missiles) or any other weapons.



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Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicted or that other measures may not be required.

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