Common-Mode Chokes - CMESC 17

- Less than 20 % performance variations versus temperature (-40 °C/+125 °C)
- Minimum impedance attenuation: 100 Ω from 100 kHz to 30 MHz
- RMS current range: from 1.1 A to 11.7 A for 40 °C heating above 25 °C
- All plastics used meet UL94V-0 rating
- Operating/storage temperature range: -40 °C to +125 °C
- Approx weight: 10 grams

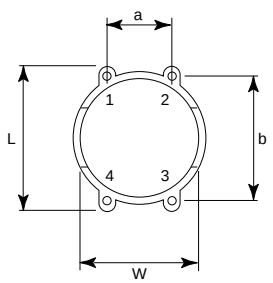
Electrical Data

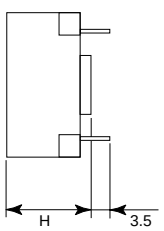
ID Code	Inductance Value at 25°C (-40/+35%)	Typical SRF	Max Impedance (Typical)	MAX Attenuation (Z = 50Ω)	MAX RMS Current for ΔT = 40°C	MAX DC Resistance (25°C)	Typical Leakage Inductance (100kHz)
CMESC17 69M 1H	69.2 mH	0.1 MHz	29 kΩ	49 dB	1.1 A	500 mΩ	70 µH
CMESC17 30M 2H	30.3 mH	0.3 MHz	15.8 kΩ	44 dB	1.7 A	220 mΩ	32 µH
CMESC17 13M 1H	13.1 mH	0.6 MHz	9.4 kΩ	40 dB	2.7 A	90 mΩ	13.4 µH
CMESC17 5M8 1H	5.83 mH	1.5 MHz	5.3 kΩ	35 dB	4 A	40 mΩ	6.3 µH
CMESC17 2M6 1H	2.59 mH	8 MHz	3.7 kΩ	32 dB	6 A	18 mΩ	2.3 µH
CMESC17 1M2 1H	1.15 mH	15 MHz	1.9 kΩ	26 dB	8.3 A	10 mΩ	1.1 µH
CMESC17 M45 1H	0.45 mH	32 MHz	1 kΩ	20 dB	11.7 A	5 mΩ	0.5 µH

Dielectric strength test: 500 V (50 Hz-1 min)

Typical Dimensions (mm)

Horizontal design CMESC1x xxx xH

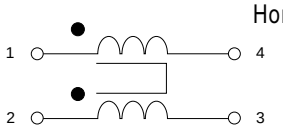




ID Code	L	H	W	A	B	pins
CMESC17 xxx xH	17.5	12.5	17	10	15	0.9 x 0.6

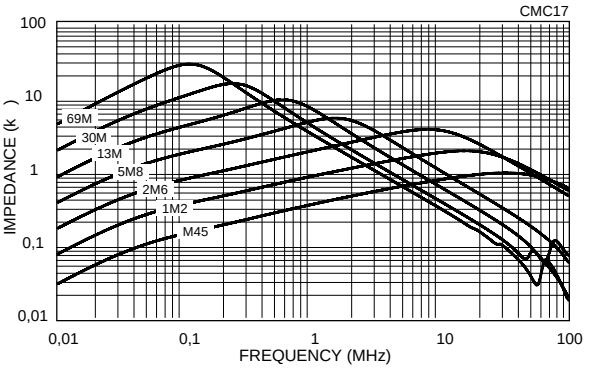
Connections

Horizontal design



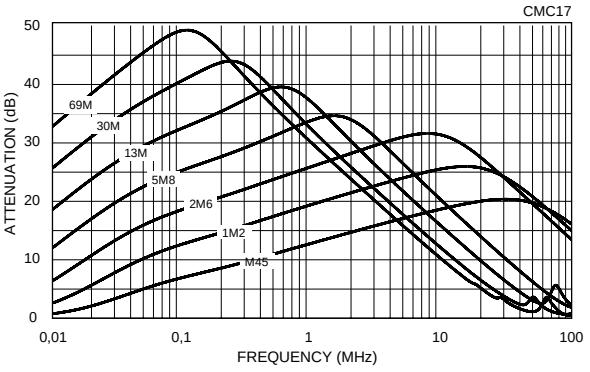
CMESC 17 Common Mode Chokes Series
Improved Temperature Stability

Impedance



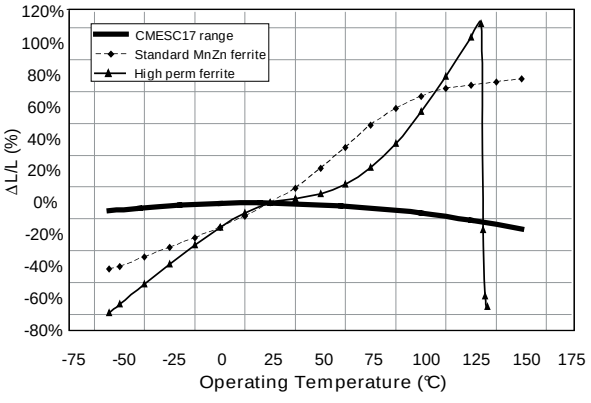
Typical values at 25°C with 1mT at 10kHz

Attenuation



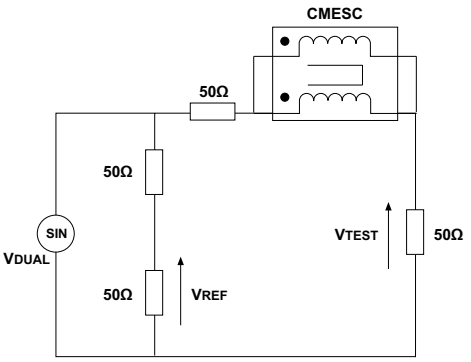
Typical values (Z=50Ω) at 25°C with 1mT at 10kHz

Variation vs Temperature



Change in inductance value (<1mT at 10kHz)

Attenuation Measurement Circuit



$$\text{Att. (dB)} = 20 \log_{10} \frac{V_{TEST}}{V_{REF}}$$

CMESC17 range uses very high performance materials and therefore, offers remarkable temperature stability figures compared to standard or high-perm ferrite cores.