

ALN20S Series 85°C

RoHS
Compliant

- 4 Pin Solder tag
- Long Life 18000 hours at 85 °C (Ur, Ir applied)
- Slit Foil technology



APPLICATION

A new generation of audio capacitors is now available from BHC – T-Network Capacitor (TNC). The TNC has been designed specifically for audio applications by DNM design and is being manufactured in the UK by BHC.

BASIC DESIGN

In a normal capacitor unwanted resistance and inductance force the input and output together electrically, making its unwanted characteristics very critical for performance - figure 1.

The new T-Network capacitor (TNC) behaves differently because the input must flow along the capacitor plate to reach the output. The signal is forced into pure capacitance with most of the unwanted resistance and inductance appearing on each side of the bulk capacitance. The residual defects, therefore, tend to assist capacitance filtering in the T-Network design - figure 2.

The TNC is designed for the most demanding filtering situations and it will redefine performance standards in many non-audio applications. For use in audio amplifiers, the TNC incorporates current slit foil technology to produce the ultimate audio capacitor. These capacitors give excellent results against standard components on a direct replacement. However, TNC high frequency performance is so enhanced that the H.F. compensation of test amplifiers may need resetting for best results.

Figure 1: Conventional capacitor

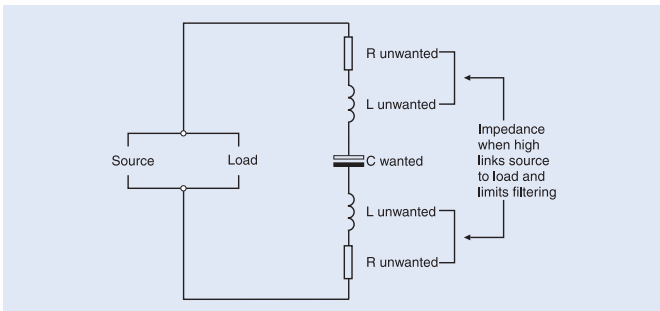
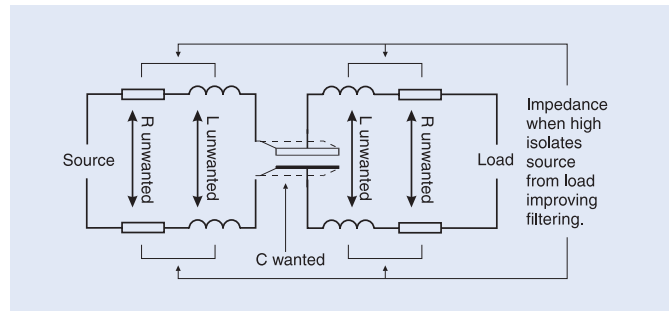


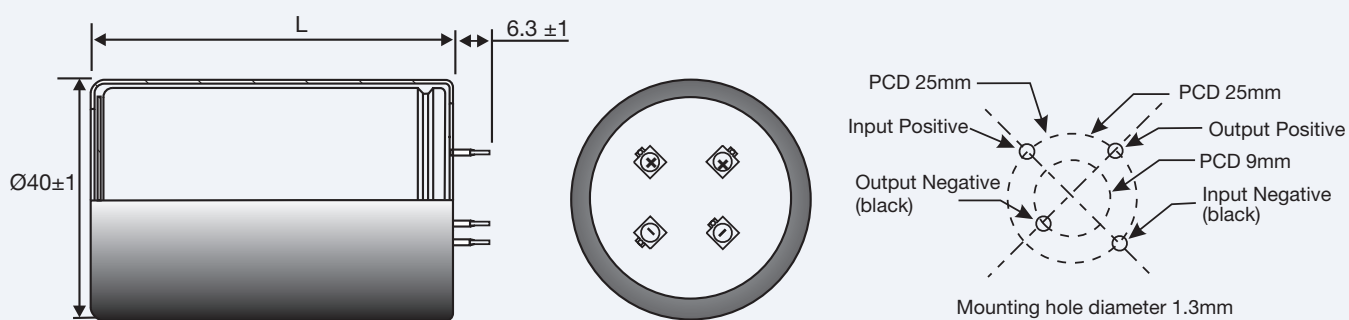
Figure 2: T-Network capacitor



SPECIFICATION

Standards	IEC 60384-4	
Capacitance range	10000 μ F	
Capacitance tolerance	$\pm 20\%$ (-10% +30% where specified)	
Rated voltage U_R	50 - 100 VDC	
Surge voltage U_S	$1.15 \times U_R$	Test Condition: $\leq 30s$ surge, 1000 cycles @ 85°C
Leakage current I_L	$= 0.006 \times C_R \times U_R$ (μ A) or 6mA whichever is the smaller. Note, C_R is in μ F.	Test Condition: U_R , 5mins., 20°C
Operational life time +85°C, U_R, I_R	18000 hours	End of Life requirement: $\Delta C/C \leq \pm 10\%$ ESR $\leq 2 \times$ initial ESR value $I_L \leq$ initial specified limit
+85°C, U_R	29000 hours	
Shelf Life	2000 hrs at 0V +85°C, or 30000 hrs at 0V +40°C	
Temperature range	-40 to +85°C (Operating) -55°C to +85°C (Storage)	

SPECIFICATION



Dimensions (sleeved) mm

Part Number	Capacitance μF	U_R V	Length $L \pm 2$ mm
ALN20S1053DD	10,000 -10% +30%	50V	55
ALN20S1106DD	10,000 $\pm 20\%$	50V	55
ALN20S1067DD	10,000 $\pm 20\%$	63V	55
ALN20S1107DE	10,000 $\pm 20\%$	80V	75
ALN20S1108DF	10,000 $\pm 20\%$	100V	105