

L Series 40LT10

SensComp's 'L' Series Open Face Piezoelectric Ultrasonic Sensors – 40LT10 and 40LR10

Features

Open Face Construction
Increased Sensitivity
Reduced Ringing Characteristics,
Specifically Intended for Operation in Air at Ultrasonic Frequencies

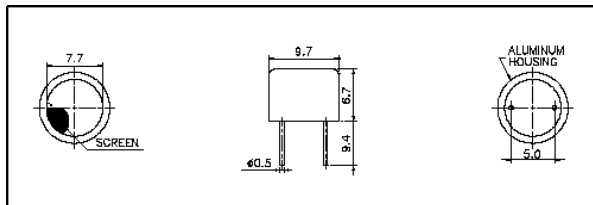
Part No.

*PID# 626998ALF – L Series 40LT10 (Aluminum Housing)
*PID# 626998BLF – L Series 40LT10 (Alum. Blk. Anodized)

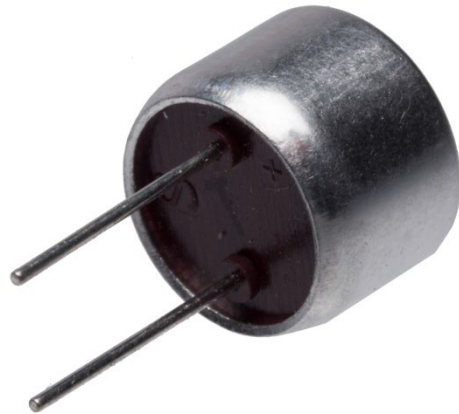
* RoHS Compliant

Specifications

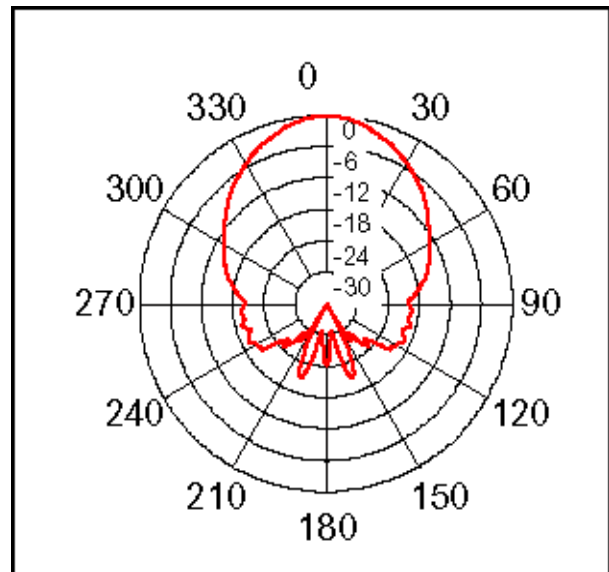
40LT10..... Transmitter
Center Frequency..... 40.0 ± 1.0 kHz
Bandwidth (-6 dB) 40LT10 2.5 kHz
40LR10 3.0 kHz
Transmitting Sound Pressure Level..... 112 dB min
at 40.0 kHz; 0dB re 0.0002 μ bar
per 10 Vrms at 30 cm
Receiving Sensitivity -70 dB min
at 40.0 kHz; 0dB = 1 volt/ μ bar
Capacitance at 1 kHz $\pm 20\%$ 1900 pf
Maximum Driving Voltage (cont.) 10 Vrms
Total Beam Angle (-6 dB)..... 72° typical
Operating Temperature -30° to 80° C
Storage Temperature -40° to 85° C
all specifications taken typical at 25° C
Dimensions: dimensions are in mm



Specifications



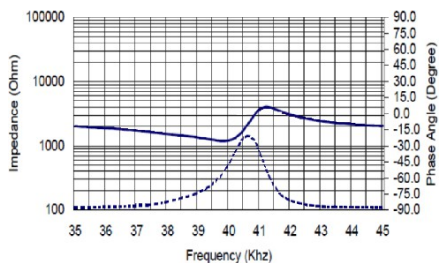
Beam Angle: Tested at 40.0 kHz



40LT10 Impedance _____
 40LT10 Phase _____

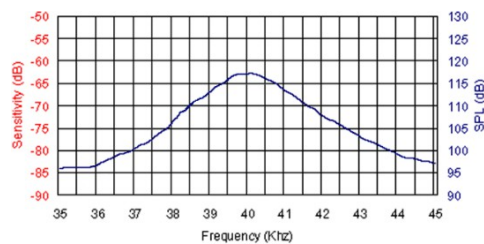
Impedance/Phase Angle vs. Frequency

Tested under 1 Vrms Oscillation Level



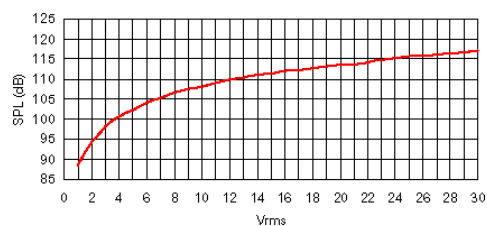
Sensitivity/Sound Pressure Level

Tested under 10 Vrms @ 30 cm

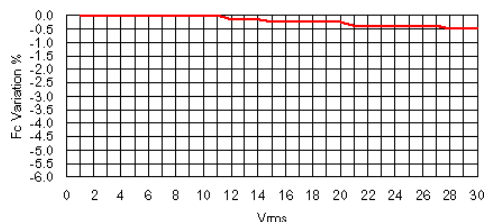


40LT10 Transmitter

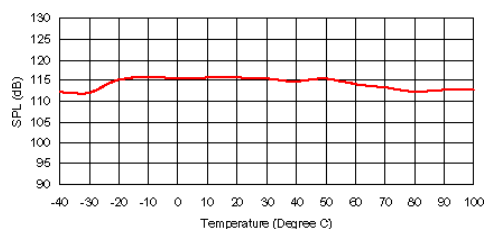
SPL Variation vs. Driving Voltage



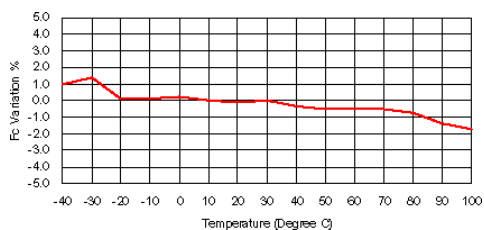
Center Frequency Shift vs. Driving Voltage



SPL Variation vs. Temperature



Center Frequency Shift vs. Temperature



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