

# LOW INDUCTANCE CHIP CAPACITORS



These MLC capacitors are specially designed to lower inductance by altering the aspect ratio of the termination in conjunction with improved conductivity of the electrodes. This inherent low ESL and ESR design improves the capacitor circuit performance by lowering the current change noise pulse and voltage drop. The system will benefit by lower power consumption, increased efficiency, and higher operating speeds.

## FEATURES

- Low ESL
- High Resonant Frequency
- Low ESR
- Small Size

## APPLICATIONS

- High Speed Microprocessors
- AC Noise Reduction in multi-chip modules (MCM)
- High speed digital equipment

## CAPACITANCE SELECTION

		150 pF	180 pF	220 pF	330 pF	470 pF	1000 pF	1200 pF	2200 pF	3300 pF	4700 pF	.010 $\mu$ F	.012 $\mu$ F	.022 $\mu$ F	.033 $\mu$ F	.047 $\mu$ F	0.10 $\mu$ F	0.12 $\mu$ F	0.22 $\mu$ F	0.33 $\mu$ F	0.47 $\mu$ F	1.00 $\mu$ F	
<b>B15 / 0508</b> Inches (mm) L .050 $\pm$ .010 (1.27 $\pm$ .25) W .080 $\pm$ .010 (2.03 $\pm$ .25) T .050 Max. (1.27) E/B .010 $\pm$ .005 (0.25 $\pm$ .13)	50 V	NPO						X7R				Z5U											
	25 V																	X7R					
	16 V																	Z5U					
<b>B18 / 0612</b> Inches (mm) L .062 $\pm$ .010 (1.57 $\pm$ .25) W .125 $\pm$ .010 (3.17 $\pm$ .25) T .060 Max. (1.52) E/B .010 $\pm$ .005 (0.25 $\pm$ .13)	50 V	NPO						X7R				Z5U											
	25 V																	X7R					
	16 V																	Z5U					

Dielectric specifications are listed on page 28 & 29.

## HOW TO ORDER LOW INDUCTANCE

<b>500</b>	<b>B18</b>	<b>W</b>	<b>473</b>	<b>K</b>	<b>V</b>	<b>4</b>	<b>E</b>														
<b>VOLTAGE</b> 160 = 16 V 250 = 25 V 500 = 50 V	<b>CASE SIZE</b> B15 = 0508 B18 = 0612	<b>DIELECTRIC</b> N = NPO W = X7R Z = Z5U	<b>CAPACITANCE</b> 1st two digits are significant; third digit denotes number of zeros. 474 = 0.47 $\mu$ F 105 = 1.00 $\mu$ F	<b>TOLERANCE</b> J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20% Z = +80% -20%	<b>TERMINATION</b> V = Nickel Barrier  <b>MARKING</b> 4 = Unmarked	<b>TAPE MODIFIER</b> <table border="1"> <thead> <tr> <th>Code</th> <th>Type</th> <th>Reel</th> </tr> </thead> <tbody> <tr> <td>E</td> <td>Plastic</td> <td>7"</td> </tr> <tr> <td>U</td> <td>Plastic</td> <td>13"</td> </tr> <tr> <td>T</td> <td>Paper</td> <td>7"</td> </tr> <tr> <td>R</td> <td>Paper</td> <td>13"</td> </tr> </tbody> </table> Tape specs. per EIA RS481	Code	Type	Reel	E	Plastic	7"	U	Plastic	13"	T	Paper	7"	R	Paper	13"
Code	Type	Reel																			
E	Plastic	7"																			
U	Plastic	13"																			
T	Paper	7"																			
R	Paper	13"																			

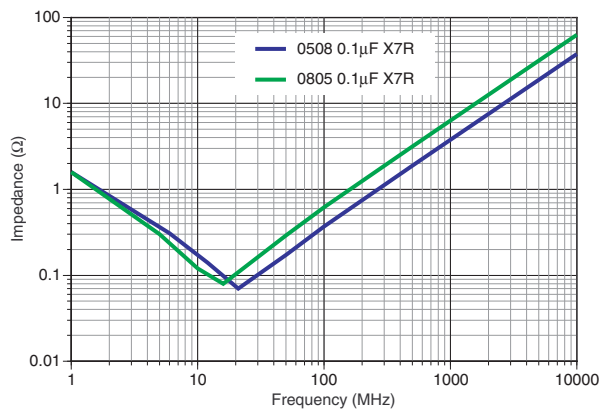
P/N written: 500B18W473KV4E



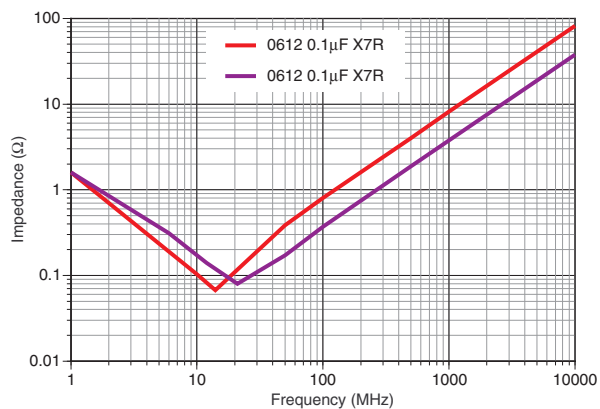
# LOW INDUCTANCE CHIP CAPACITORS

## TYPICAL PERFORMANCE

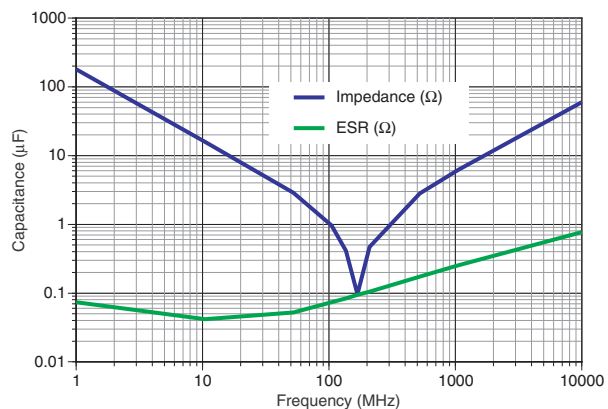
IMPEDANCE 0508 vs. 0805



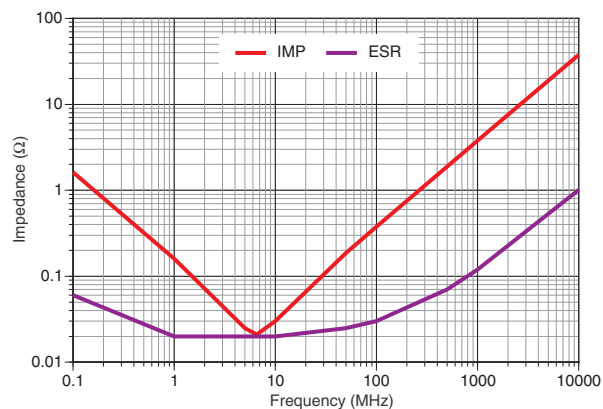
IMPEDANCE 0612 vs. 1206



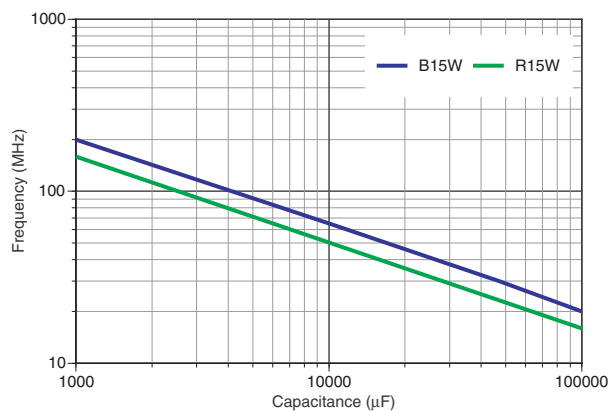
IMPEDANCE AND ESR 0612 0.1μF X7R



IMPEDANCE AND ESR 0612 0.1μF X7R



SERIES RESONANT FREQUENCY 0508 vs. 0805



0508 X7R SERIES RESONANT FREQUENCY

