

RF/Microwave Capacitors

RF/Microwave C0G (NP0) Capacitors

Ultra Low ESR "U" Series, C0G (NP0) Capacitors (RoHS)

Automotive, AEC Q200 Qualified



GENERAL INFORMATION

Automotive "U" Series capacitors are C0G (NP0) chip capacitors specially designed for "Ultra" low ESR for applications in the automotive market. Max ESR and effective capacitance are met on each value producing lot to lot uniformity. Sizes available are EIA chip sizes 0402 and 0603.

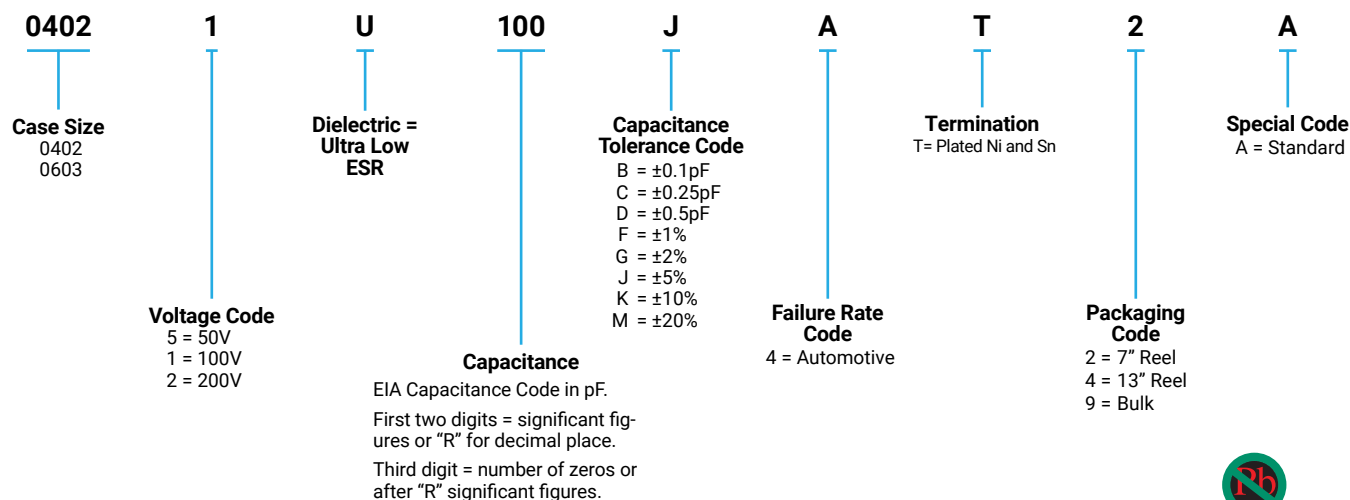
DIMENSIONS: inches (millimeters)



inches (mm)

Size	A	B	C	D	E
0402	0.039±0.004 (1.00±0.1)	0.020±0.004 (0.50±0.1)	0.024 max (0.6)	N/A	N/A
0603	0.060±0.010 (1.52±0.25)	0.030±0.010 (0.76±0.25)	0.036 max (0.91)	0.010±0.005 (0.25±0.13)	0.030 min (0.76)

HOW TO ORDER



ELECTRICAL CHARACTERISTICS

Capacitance Values and Tolerances:

Size 0402 - 0.2 pF to 22 pF @ 1 MHz

Size 0603 - 1.0 pF to 100 pF @ 1 MHz

Temperature Coefficient of Capacitance (TC):

0±30 ppm/°C (-55° to +125°C)

Insulation Resistance (IR):

10¹² Ω min. @ 25°C and rated WVDC

10¹¹ Ω min. @ 125°C and rated WVDC

Working Voltage (WVDC):

Size Working Voltage

0402 - 100, 50, 25 WVDC

0603 - 200, 100, 50 WVDC

Dielectric Working Voltage (DWV):

250% of rated WVDC

Equivalent Series Resistance Typical (ESR):

0402 - See Performance Curve, page 303

0603 - See Performance Curve, page 303

Automotive Specifications

Meets or exceeds the requirements of AEC Q200



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CAPACITANCE RANGE

Cap (pF)	Available Tolerance	Size	
		0402	0603
0.2	B,C	50V	N/A
0.3			
0.4	B,C		
0.5			
0.6	B,C,D		
0.7			
0.8	B,C,D		
0.9			

Cap (pF)	Available Tolerance	Size	
		0402	0603
1.0	B,C,D	50V	200V
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.4			
2.7			
3.0			
3.3	B,C,D B,C,J,K,M		
3.6			
3.9			
4.3			
4.7			
5.1			
5.6			
6.2			
6.8			

Cap (pF)	Available Tolerance	Size	
		0402	0603
7.5	B,C,J,K,M	50V	200V
8.2			
9.1	B,C,J,K,M F,G,J,K,M		
10			
11			
12			
13			
15			
18			
20			
22			
24			
27			
30			
33			
36			
39			
43			
47			
51			
56			
68			
75			
82			
91			

Cap (pF)	Available Tolerance	Size	
		0402	0603
100	F,G,J,K,M	N/A	100V 50V 50V N/A
110			
120			
130			
140			
150			
160			
180			
200			
220			
270			
300			
330			
360			
390			
430			
470	F,G,J,K,M		
510			
560			
620			
680			
750			
820			
910			
1000			

ULTRA LOW ESR, “U” SERIES

