# RF/Microwave Capacitors RF/Microwave COG (NP0) Capacitors Ultra Low ESR "U" Series, COG (NP0) Capacitors (RoHS) Automotive, AEC Q200 Qualified



## **GENERAL INFORMATION**

Automotive "U" Series capacitors are COG (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)

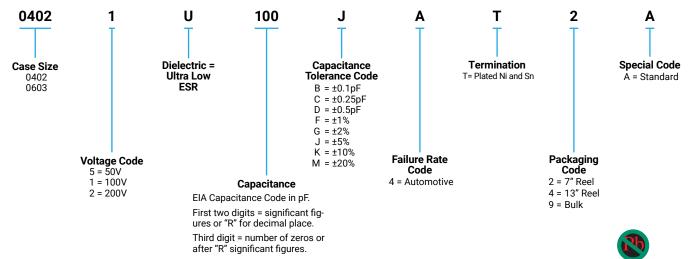
LEAD-FREE

LEAD-FREE COMPATIBLE COMPONENT RoHS

COMPLIANT

Size	Α	В	С	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):

 $10^{12}\,\Omega$  min. @ 25°C and rated WVDC  $10^{11}\,\Omega$  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

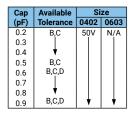


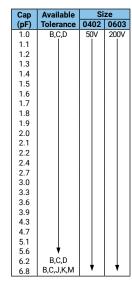
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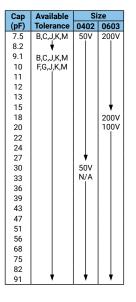


2500

## **CAPACITANCE RANGE**

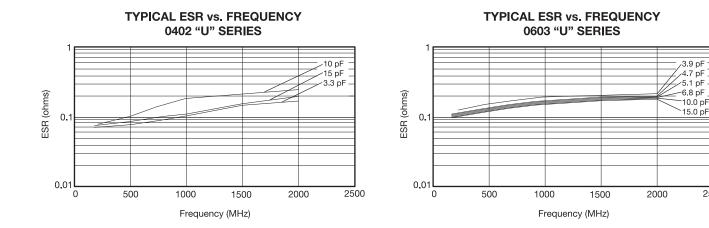




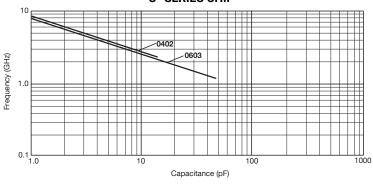


Ca	2	Available		Size			
(pF	)	Tolerance		0402		0603	
100	)	F,G,J,	K,M	N/	/Α	10	0V
110	)					50	
120	)					50	
130	)					N,	'A
140	)						
150	)						
160	)						
180	)						
200	)						
220	)						
270	)						
300	)						
330	)						
360	)						
390	)						
430							
470	)						
510	)						
560	)						
620	)						
680	)						
750	)						
820							
910		•					L
100	0	F,G,J,	K,M				/

## ULTRA LOW ESR, "U" SERIES



TYPICAL SERIES RESONANT FREQUENCY "U" SERIES CHIP





The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.avx.com/disclaimer/ by reference and should be reviewed in full before placing any order. 单击下面可查看定价,库存,交付和生命周期等信息

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