

ATC 920 C Series X7R Ceramic RF Power Multilayer Capacitors

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ATC's 920C Series MLC capacitors offer superior quality at a competitive price. This MLC Series is manufactured for ATC in accordance with ATC's high quality standards. Ceramic construction provides a rugged and reliable hermetic package. Available termination styles include a standard solder plate over a nickel barrier for most applications and palladium silver for non-magnetic applications commonly used in medical electronics.

Typical functional applications: Bypass, Coupling, and DC Blocking.

Typical circuit applications: HF Amplifiers, Switching Mode Power Supplies (SMPS), High Frequency SMPS Filters.

ENVIRONMENTAL TESTS

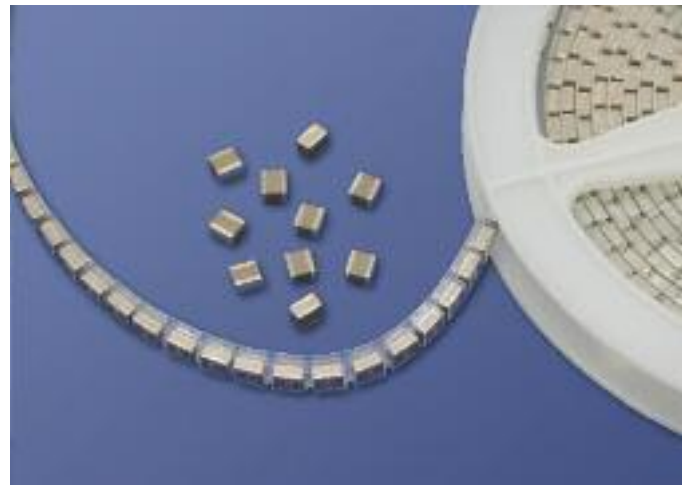
ATC 920 C Series Capacitors are designed and manufactured to meet and exceed the requirements of EIA-198, MIL-PRF-55681 and MIL-PRF-123.

MIL-STD-202, Method 107, Condition A.

MIL-STD-202, Method 106.

MIL-STD-202, Method 103, Condition A, with 1.5 Volts DC applied while subjected to an environment of 85°C with 85% relative humidity for 240 hours min.

MIL-STD-202, Method 108, for 2000 hours, at 125°C. 200% WVDC applied.



ELECTRICAL AND MECHANICAL SPECIFICATIONS

2.5% max. at 1 KHz.

Less than ±15% (-55°C to +125°C)

0.01 MFd to 1 MFd
1000 megohms min. @ +25°C at rated WVDC.
100 megohms min. @ +125°C at rated WVDC.

See Capacitance Values Table, page 2.

Case C: 250% of rated WVDC for 5 secs.

3% maximum per decade hour.

Negligible

2% typical

-55°C to +125°C (No derating of working voltage).

W Termination – Solder Plate.

T Termination – Tin Plated over Nickel Barrier

TN Termination – Tin Plated over Non-Magnetic Barrier

CN Termination (Non-Magnetic) Palladium Silver

See Mechanical Configuration Table, page 2.

Terminations for chips, withstand a pull of 10 lbs. min., 15 lbs. typical, for 5 seconds in direction perpendicular to the termination surface of the capacitor. Test per MIL-STD-202, method 211.



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ATC 920 C Capacitance Values

103	.010	K, M	300	224	.22	K, M	200
153	.015			334	.33		150
223	.022			474	.47		100
333	.033		684	.68	-		
473	.047		824	.82	-		
683	.068		105	1.0	-		
104	.10		200	-	-		-
154	.15			-	-		

ATC 920 C 10 5 M W 100 T

Series _____

Case Size _____

Capacitance Code: _____
First 2 significant digits for capacitance.

Indicates number of zeros following digits of capacitance in picofarads except for decimal values. _____

Capacitance Tolerance _____
See Table at right

Packaging
T - Tape and Reel
S - Strip Tape


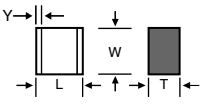

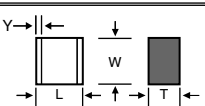
WVDC

Termination Code


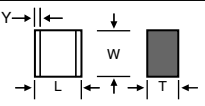

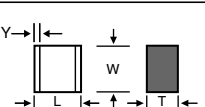
Code	K	M
Tol.	±10%	±20%

The above part number refers to a 920 C Series (case size C) 1.0 MFd capacitor, M tolerance (±20%), 100 WVDC, with W termination (solder plate) and Tape and Reel Packaging.

ATC 920 C Capacitors: Mechanical Configurations

ATC SERIES & CASE SIZE	ATC TERM. CODE	CASE SIZE & TYPE	OUTLINES W/T IS A TERMINATION SURFACE	BODY DIMENSIONS – Inches (mm)			LEAD AND TERMINATION DIMENSIONS AND MATERIALS	
				LENGTH (L)	WIDTH (W)	THICKNESS (T)	OVERLAP (Y)	MATERIALS
920C	W	 C Solder Plate		0.22 +.020 -.010 (5.58 +0.51 -0.25)	.250 ±.01 (6.35 ±0.25)	.157 (3.98) max.	.045 (1.14) max.	SOLDER PLATE Nickel barrier, solder plated. Rugged high performance termination for lower cost, high volume applications
920C	T	 C Solderable Nickel Barrier		0.22 +.020 -.010 (5.58 +0.51 -0.25)	.250 ±.01 (6.35 ±0.25)	.157 (3.98) max.	.045 (1.14) max.	RoHS Compliant Tin Plated over Nickel Barrier Termination

ATC 920 C Capacitors: Non-Magnetic Mechanical Configurations

ATC SERIES & CASE SIZE	ATC TERM. CODE	CASE SIZE & TYPE	OUTLINES W/T IS A TERMINATION SURFACE	BODY DIMENSIONS – Inches (mm)			LEAD AND TERMINATION DIMENSIONS AND MATERIALS	
				LENGTH (L)	WIDTH (W)	THICKNESS (T)	OVERLAP (Y)	MATERIALS
920C	CN	 C Non-Mag Chip		0.22 +.020 -.010 (5.58 +0.51 -0.25)	.250 ±.01 (6.35 ±0.25)	.157 (3.98) max.	.045 (1.14) max.	NON-MAGNETIC PALLADIUM SILVER TERMINATIONS
920C	TN	 C Non-Mag Solderable Nickel Barrier		0.22 +.020 -.010 (5.58 +0.51 -0.25)	.250 ±.01 (6.35 ±0.25)	.157 (3.98) max.	.045 (1.14) max.	RoHS Compliant Tin Plated over Non-Magnetic Barrier Termination

ATC accepts orders for our parts using designations *with* or *without* the "ATC" prefix. Both methods of defining the part number are equivalent, i.e., part numbers referenced with the "ATC" prefix are interchangeable to parts referenced without the "ATC" prefix. Customers are free to use either in specifying or procuring parts from American Technical Ceramics. For additional information and catalogs contact your ATC representative or call direct at (631) 622-4700.

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