

7676C(.760 x .760)

◆ Product Features

High Q, High RF Current/Voltage, High RF Power, Low ESR/ESL, Low Noise,
Ultra- Stable Performance.

◆ 7676C Capacitance Table

Cap.pF	Code	Tol.	Rated WVDC	Cap.pF	Code	Tol.	Rated WVDC	Cap.pF	Code	Tol.	Rated WVDC	
1.0	1R0	B,C,D	3000V Code 302 or 5000V Code 502	33	330	F,G,J, K,M	3000V Code 302 or 5000V Code 502	820	821	F,G,J, K,M	2000V Code 202	
1.2	1R2			39	390			1000	102			
1.5	1R5			47	470			1200	122			
1.8	1R8			56	560			1500	152			
2.2	2R2			68	680			1800	182			
2.7	2R7			82	820			2200	222			
3.3	3R3			100	101			2700	272		2000V Code 202	
3.9	3R9			120	121			3300	332			
4.7	4R7			150	151			4700	472			
5.6	5R6			180	181			5100	512			
6.8	6R8			220	221			5600	562			
8.2	8R2			270	271			6800	682		G,J, K,M	1000V Code 102
10	100			300	331			7500	752			
12	120	390	391	8200	822							
15	150	470	471	10000	103							
18	180	F,G,J, K,M	3000V Code 302	560	561							
22	220			680	681							
27	270											

Remark: special capacitance, tolerances and WVDC are available, consult with PASSIVE PLUS.

◆ Performance

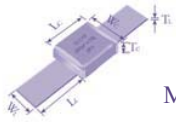
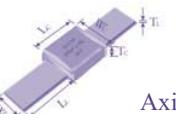
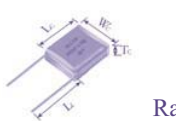

Item	Specifications
Quality Factor (Q)	1 pF to 1000 pF: greater than 2000 at 1 MHz. More than 1000 pF: greater than 2000 at 1 KHz.
Insulation Resistance (IR)	Test Voltage: 500V 10 ⁵ Megohms min. @ +25°C at rated WVDC. 10 ⁴ Megohms min. @ +125°C at rated WVDC.
Rated Voltage	See Rated Voltage Table
Dielectric Withstanding Voltage(DWV)	250% of rated WVDC for 5 seconds.
Operating Temperature Range	-55°C to +125°C
Temperature Coefficient (TC)	0 ± 30ppm/°C
Capacitance Drift	± 0.02% or ± 0.02pF, whichever is greater.
Piezoelectric Effects	None

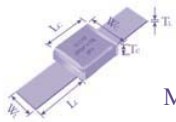
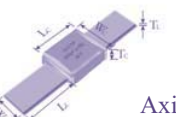
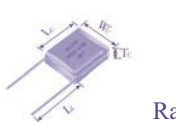

◆ Environmental Tests

Item	Specifications	Method
Thermal shock	DWV: the initial value IR: Shall be not less than 30% the initial value Capacitance change: no more than 0.5% or 0.5pF.	MIL-STD-202, Method 107, Condition A. At the maximum rated temperature(-55°C and 125°C) stay 30 minutes,The time of removing shall be not more than 3 minutes. Perform the five cycles.
Moisture resistance		MIL-STD-202, Method 106.
Humidity (steady state)	DWV: the initial value IR: the initial value Capacitance change: no more than 0.3% or 0.3pF.	MIL-STD-202, Method 103, Condition A, with 1.5 Volts D.C. applied while subjected to an environment of 85°Cwith 85% relative humidity for 240 hours min.
Life	IR: Shall be not less than 30% the initial value Capacitance change: no more than 0.2%	MIL-STD-202, Method 108, for 2000 hours, at 125°C. 150% Rated voltage D.C. applied.
Terminal Strength	Microstrip: more than 20 N; lead wire: more than 10 N.	MIL-STD-202, Method 211,

◆7676C Lead Type and Dimensions

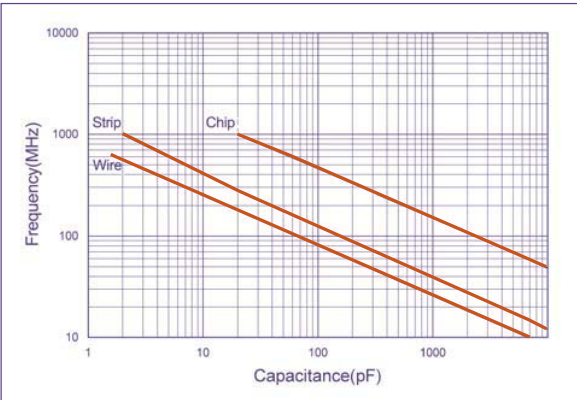
unit: millimeter

Series	Term. Code	Type/Outlines	Capacitor Dimensions			Lead Dimensions			Lead Material
			Length (Lc)	Width (Wc)	Thickness (Tc)	Length (Ll)	Width (Wl)	Thickness (Tl)	
7676C	MS	 Microstrip	.760 +0.15~ -.010 (19.3)	.760 ±0.01 (19.3 ±0.25)	.154 ±.008 (3.90 ±0.20)	.787 (20.00) min	.591 ±0.01 (15.0 ±0.25)	.01 ±.005 (0.25 ±0.13)	Silver-plated Copper
7676C	AR	 Axial Ribbon							
7676C	RW	 Radial Wire				.787 (20.00) min	Dia.=.03 ± .004 (0.8±0.1)		
7676C	AW	 Axial Wire				1.181 (30.00) min			

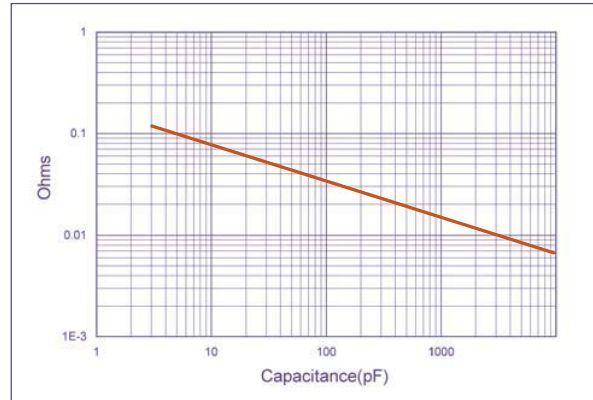
Series	Term. Code	Type/Outlines	Capacitor Dimensions			Lead Dimensions			Lead Material
			Length (Lc)	Width (Wc)	Thickness (Tc)	Length (Ll)	Width (Wl)	Thickness (Tl)	
7676C	MN (non-mag)	 Microstrip	.760 +0.15~ -.010 (19.3)	.760 ±0.01 (19.3 ±0.25)	.154 ±.008 (3.90 ±0.20)	.787 (20.00) min	.591 ±0.01 (15.0 ±0.25)	.01 ±.005 (0.25 ±0.13)	Silver-plated Copper
7676C	AN (non-mag)	 Axial Ribbon							
7676C	RN (non-mag)	 Radial Wire				.787 (20.00) min	Dia.=.03 ± .004 (0.8±0.1)		
7676C	BN (non-mag)	 Axial Wire				1.181 (30.00) min			

◆7676C Performance Curve

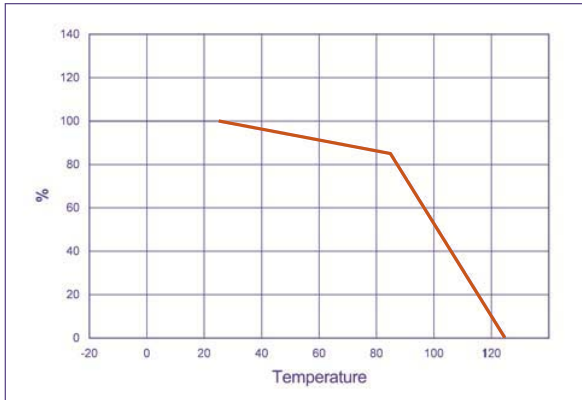
Self Resonant Frequency vs Capacitance



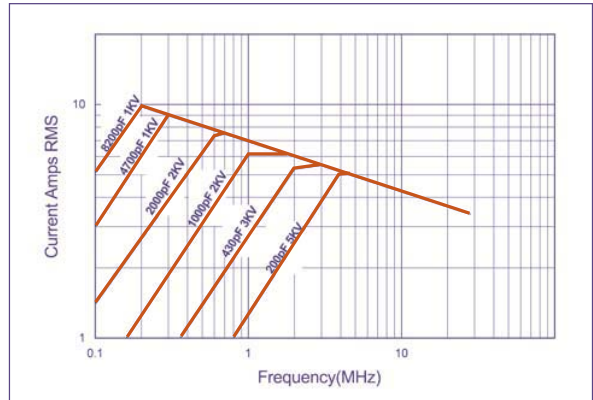
ESR vs Capacitance measured @ 30MHz



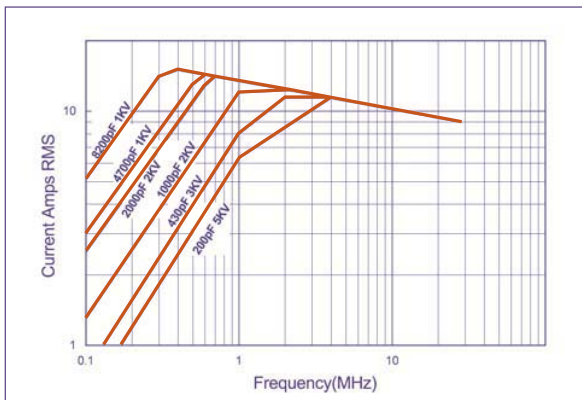
%Maximum Current vs Ambient Temperature



7676C Wire Terminals Rated Current vs Frequency



7676C Strip Terminals Rated Current vs Frequency

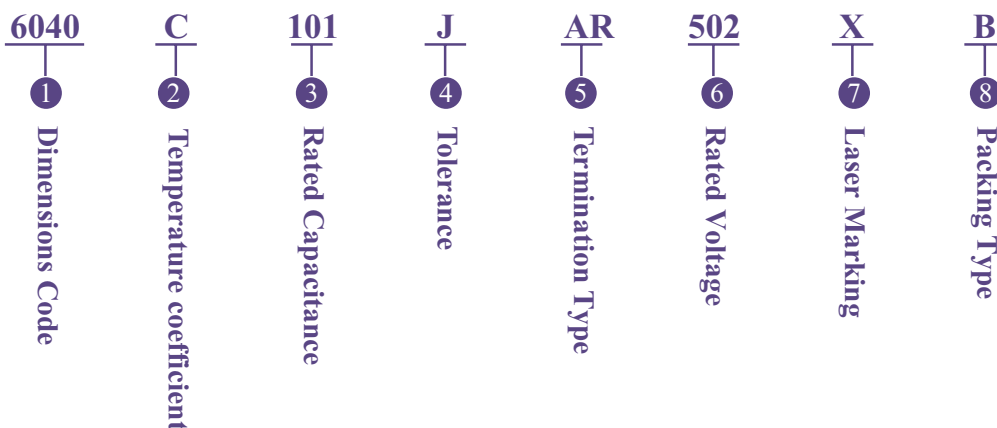


Hi Q 70XXC

◆ Product Features

High Q, High RF Current/Voltage, High RF Power, Low ESR/ESL, Low Noise.

◆ Part Numbering



① Dimensions Code

unit:inch(millimeter)

	6040C	7676C
Length	0.614+0.015~ -0.010 (15.60+0.38~ -0.25)	0.760+0.015~-0.010 (19.30+0.38~-0.25)
Width	0.433 ± 0.01(11.0 ± 0.25)	0.760 ± 0.01(19.30 ± 0.25)
Thickness	0.154 ± 0.008(3.90 ± 0.20)	0.154 ± 0.008(3.90 ± 0.20)

② Temperature coefficient: 0 ± 30ppm/°C

③ Rated Capacitance

Capacitance is less than 10pF; for example: 1R0=1.0pF, R denote point.

Capacitance is not less than 10pF; for example: 101=100pF, The third number is the power of 10.

④ Tolerance

Code	B	C	D	F	G	J	K	M
Tolerance	± 0.1pF	± 0.25pF	± 0.5pF	± 1%	± 2%	± 5%	10%	± 20%

⑤ Termination Type

Code	MS	AR	AW	RW
Type	Microstrip	Axial Ribbon	Axial Wire	Radial wire

Code	MN	AN	BN	RN
Type	Non-mag Microstrip	Non-mag Axial Ribbon	Non-mag Axial Wire	Non-mag Radial Wire

⑥ Rated voltage

Code	Rated Voltage	Code	Rated Voltage
301	300V	252	2500V
501	500V	302	3000V
102	1000V	362	3600V
152	1500V	502	5000V
202	2000V		

⑦ Laser Marking

X denote Marking; N denote No-Marking.

Capacitance is less than 10pF; for example: The marking of 1.0pF is 1R0.

Capacitance is not less than 10pF; for example: The marking of 100pF is 101.

⑧ Packaging Type

	6040C	7676C
B: Bulk packaging in a bag	√	√
C: Gridiron packaging	√	√
I: Special packaging	Consult with PASSIVE PLUS	

◆ Performance Requirements

Capacitors are designed and manufactured to meet the requirements of MIL-C-55681 and MIL-C-123.