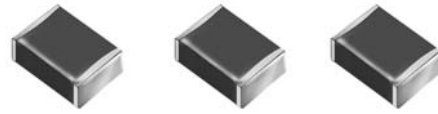


6040C (.600 x .400)



◆ Product Features

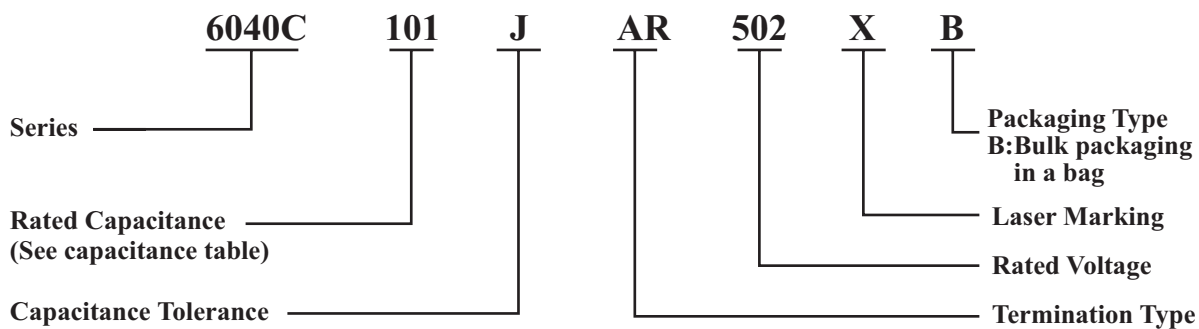
High Q, High RF Current/Voltage, High RF Power, Low ESR/ESL, Low Noise, Ultra- Stable Performance.

◆ 6040C 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	5000V code 502, Extended voltage 8000V	22	220	G,J, K,M	5000V code 502, Extended voltage 8000V	390	391	G,J, K,M	3000V code 302, Extended voltage 5000V
1.2	1R2			27	270			470	471		
1.5	1R5			33	330			560	561		
1.8	1R8			39	390			680	681		
2.2	2R2			47	470			820	821		
2.7	2R7			56	560			1000	102		
3.3	3R3			68	680			1200	122		
3.9	3R9			82	820			1500	152		
4.7	4R7			100	101			1800	182		
5.6	5R6			120	121			2200	222		
6.8	6R8	G,J, K,M	3000V code 302, Extended voltage 5000V	150	151	G,J, K,M	3000V code 302, Extended voltage 5000V	2700	272	G,J, K,M	1000V code 102, Extended voltage 2000V
8.2	8R2			180	181			3300	332		
10	100			220	221			4700	472		
12	120			270	271			5100	512		
15	150			300	301			5600	562		
18	180							6800	682		

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

◆ Part Numbering



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

◆ 6040C Lead Type and Dimensions

unit: inch(millimeter)

Series	Term. Code	Type/Outlines	Capacitor Dimensions			Overlap and Lead Dimensions				Overlap and Lead Material					
			Length (L _c)	Width (W _c)	Thickness (T _c)	Overlap (B)	Length (L _L)	Width (W _L)	Thickness (T _L)						
6040C	W	Chip	.614 +.015~ -.010 (15.60 +0.38~ -0.25)	.433 ± .01 (11.0 ±0.25)	.154 ± .008 (3.90 ± 0.20)	.063 (1.60) max	—	—	—	Nickel, Plated 100% Sn (RoHS)					
6040C	MS	Microstrip				.787 (20.00) min	.35 ± .01 (8.90 ±0.25)	.008 ± .001 (0.20 ±0.025)	—		.787 (20.00) min	Dia.=.03 ± .004 (0.8±0.1)	Silver- plated Copper		
6040C	AR	Axial Ribbon				.984 (25.00) min	—	—						.787 (20.00) min	Dia.=.03 ± .004 (0.8±0.1)
6040C	RW	Radial Wire													
6040C	AW	Axial Wire				.984 (25.00) min	—	.787 (20.00) min	Dia.=.03 ± .004 (0.8±0.1)						

Series	Term. Code	Type/Outlines	Capacitor Dimensions			Overlap and Lead Dimensions				Overlap and Lead Material					
			Length (L _c)	Width (W _c)	Thickness (T _c)	Overlap (B)	Length (L _L)	Width (W _L)	Thickness (T _L)						
6040C	P (non-mag)	Chip (Non-Magnetic)	.614 +.015~ -.010 (15.60 +0.38~ -0.25)	.433 ± .01 (11.0 ±0.25)	.154 ± .008 (3.90 ± 0.20)	.063 (1.60) max	—	—	—	Non-mag, Copper Plated 100% Sn (RoHS)					
6040C	MN (non-mag)	Microstrip (Non-Magnetic)				.787 (20.00) min	.35 ± .01 (8.90 ±0.25)	.008 ± .001 (0.20 ±0.025)	—		.787 (20.00) min	Dia.=.03 ± .004 (0.8±0.1)	Silver- plated Copper		
6040C	AN (non-mag)	Axial Ribbon (Non-Magnetic)				.984 (25.00) min	—	—						.787 (20.00) min	Dia.=.03 ± .004 (0.8±0.1)
6040C	RN (non-mag)	Radial Wire (Non-Magnetic)													
6040C	BN (non-mag)	Axial Wire (Non-Magnetic)				.984 (25.00) min	—	.787 (20.00) min	Dia.=.03 ± .004 (0.8±0.1)						

◆ 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 Voltage for 5 seconds, Rated Voltage ≤ 500VDC 150% of Voltage for 5 seconds, 500VDC < Rated Voltage ≤ 1250VDC 120% of Voltage for 5 seconds, Rated Voltage > 1250VDC
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

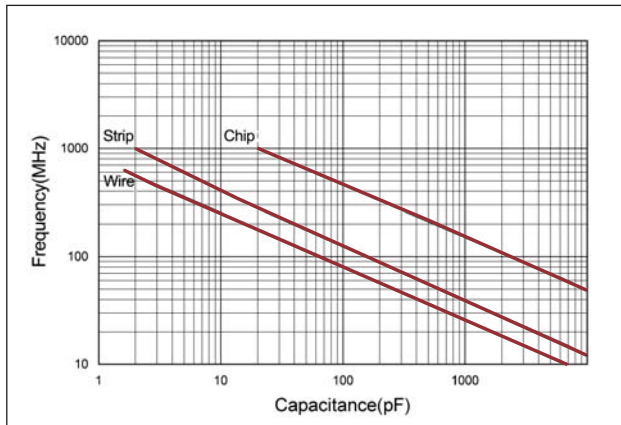
Capacitors are designed and manufactured to meet the requirements of MIL-PRF-55681 and MIL-PRF-123.

◆ Environmental Tests

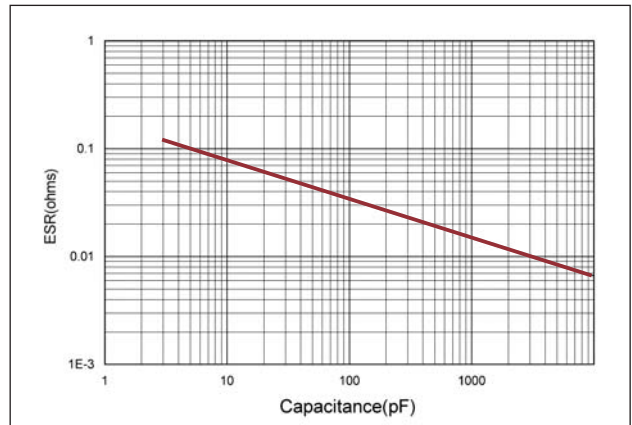
Item	Specifications	Method
Thermal Shock	DWV: the initial value IR: Shall not be less than 30% of the initial value Capacitance change:	MIL-STD-202, Method 107, Condition A. At the maximum rated temperature (-55°C and 125°C) stay 30 minutes. The time of removing shall not be more than 3 minutes. Perform the five cycles.
Moisture Resistance	no more than 0.5% or 0.5pF.	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°C with 85% relative humidity for 240 hours minimum.
Life	IR: Shall not be less than 30% of 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. Extended voltage: 100% extended voltage applied.
Terminal Strength	Microstrip: more than 20 N; Lead wire: more than 10 N.	MIL-STD-202, Method 211

◆ 6040C Performance Curve

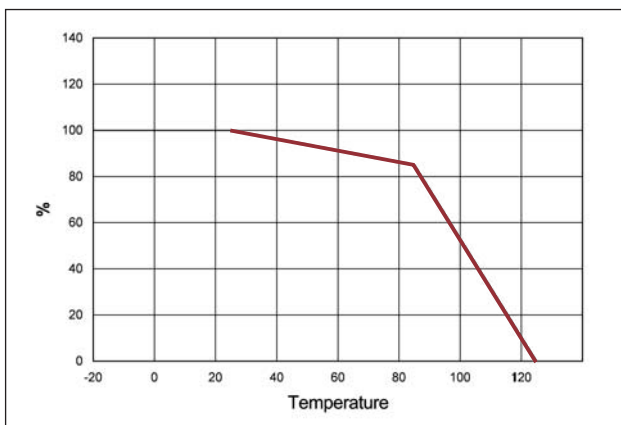
Self Resonant Frequency vs Capacitance



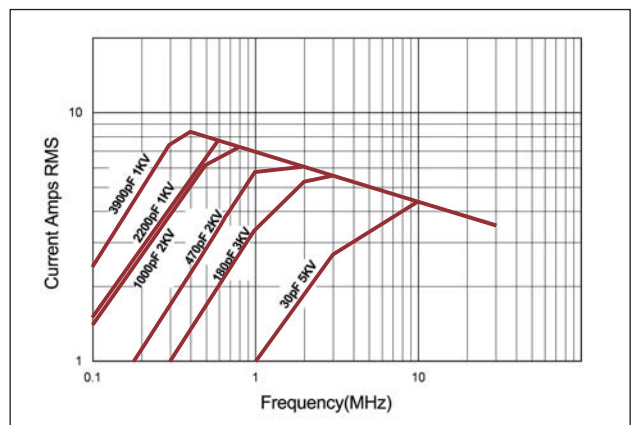
ESR vs Capacitance Measured @ 30MHz



% Maximum Current vs Ambient Temperature



6040C Wire Terminals Rated Current vs Frequency



6040C Strip Terminals Rated Current vs Frequency

