



YXC70B Series

Product Features

High Q, High Power, Low ESR/ESL, Low Noise, High Self-Resonance, Ultra- Stable Performance.

Product Application

Typical functional applications: Bypass,Coupling, Tuning, Feedback, Impedance Matching and D.C. Blocking.

Typical circuit applications: Microwave/RF/MF Amplifiers, Mixers, Oscillators, Low Noise Amplifiers,

Filter Networks, Timing Circuits and Delay Lines.

YXC70B Series Rated Capacitance Table

Code	Cap. pF	Tol.	Rated WVDC	Code	Cap. pF	Tol.	Rated WVDC	Code	Cap. pF	Tol.	Rated WVDC	Code	Cap. pF	Tol.	Rated WVDC									
0R5	0.5	A B C D	500V	3R3	3.3	A B C D	500V	240	24	F G J K M	500V	181	180	F G J K M	300V									
0R6	0.6			3R6	3.6			270	27			201	200											
0R7	0.7			3R9	3.9			300	30			221	220											
0R8	0.8			4R3	4.3			330	33			241	240											
0R9	0.9			4R7	4.7			360	36			271	270											
1R0	1.0			5R1	5.1			390	39			301	300											
1R1	1.1			5R6	5.6			430	43			331	330		200V									
1R2	1.2			6R2	6.2			470	47			361	360											
1R3	1.3			6R8	6.8			510	51			391	390											
1R4	1.4			7R5	7.5			560	56			431	430											
1R5	1.5			8R2	8.2			620	62			471	470											
1R6	1.6			9R1	9.1			680	68			511	510											
1R7	1.7			A B C D	500V			100	10			F G J K M	500V		750	75	F G J K M	500V	561	560	F G J K M	100V		
1R8	1.8							110	11						820	82			621	620				
1R9	1.9							120	12						910	91			681	680				
2R0	2.0							130	13						101	100			751	750				
2R1	2.1	F G J K M	500V			150	15	F G J K M	500V	111	110			F G J K M	300V	821			820	F G J K M		50V		
2R2	2.2					160	16			121	120					911			910					
2R4	2.4					180	18			131	130					102			1000					
2R7	2.7					200	20			151	150													
3R0	3.0					220	22			161	160													

Remark: special capacitance, tolerance and WVDC are available, consult with Yixin Microwave



Performance

Item	Specifications
Quality Factors(Q)	greater than 10,000 at 1 MHz.
Insulation Resistance(IR)	0.5 pF to 470 pF: 10 ⁶ Megohms min. @ +25°C at rated WVDC. 10 ⁵ Megohms min. @ +125°C at rated WVDC.
	510 pF to 1000 pF: 10 ⁵ Megohms min. @ +25°C at rated WVDC. 10 ⁴ Megohms min. @ +125°C at rated WVDC.
Rated Voltage(WVDC)	See Rated Voltage Table
Dielectric Withstanding Voltage	250% of rated Voltage for 5 seconds.
Operating Temperature Range	0.5pF to 330 pF: -55°C to +175°C 360pF to 1000pF: -55°C to +125°C
Temperature Coefficient(TC)	0±30ppm/°C
Capacitance Drift	±0.02% or ±0.02pF, whichever is greater.
Piezoelectric Effects	None
Termination Type	See Termination Type Table

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°C with 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. 200% Rated voltage D.C. applied.

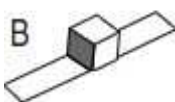
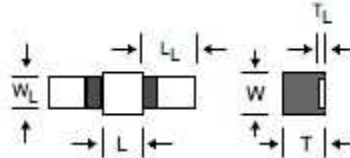
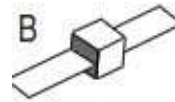
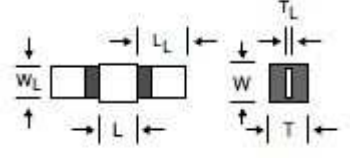
YXC70B Chip Dimension

Item	length	width	thickness
70B Chip Dime	0.110 (2.79)	0.110(2.79)	0.10(2.6)max

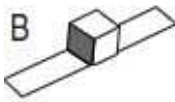
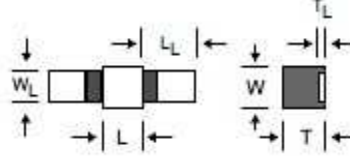
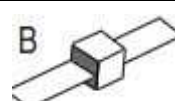
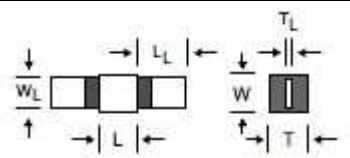
Remarks: 1.unit:inch(millimeter).2.Tolerance:±0.10(0.25)



YXC70B Lead type Dimension

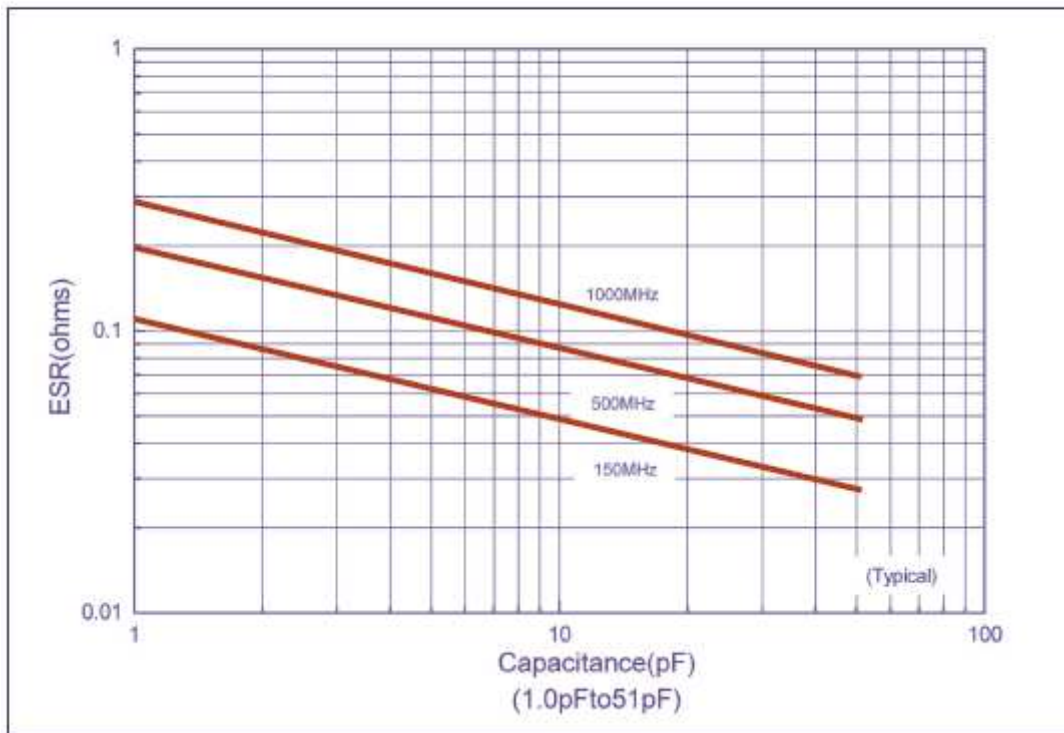
Series	Term Code	Type	Outlines	Capacitor Dimensions			Lead Dimension		
				L	W	T	L _L	W _L	T _L
70B	MS	 Microstrip		0.14	0.11	0.10	0.25	0.09	0.004
				(3.43)	(2.79)	(2.54)	(6.35)	(2.36)	(0.1)
70B	AR	 Axial Ribbon		0.14	0.11	0.10	0.25	0.09	0.004
				(3.43)	(2.79)	(2.54)	(6.35)	(2.36)	(0.1)

Lead material:is silver-plated copper

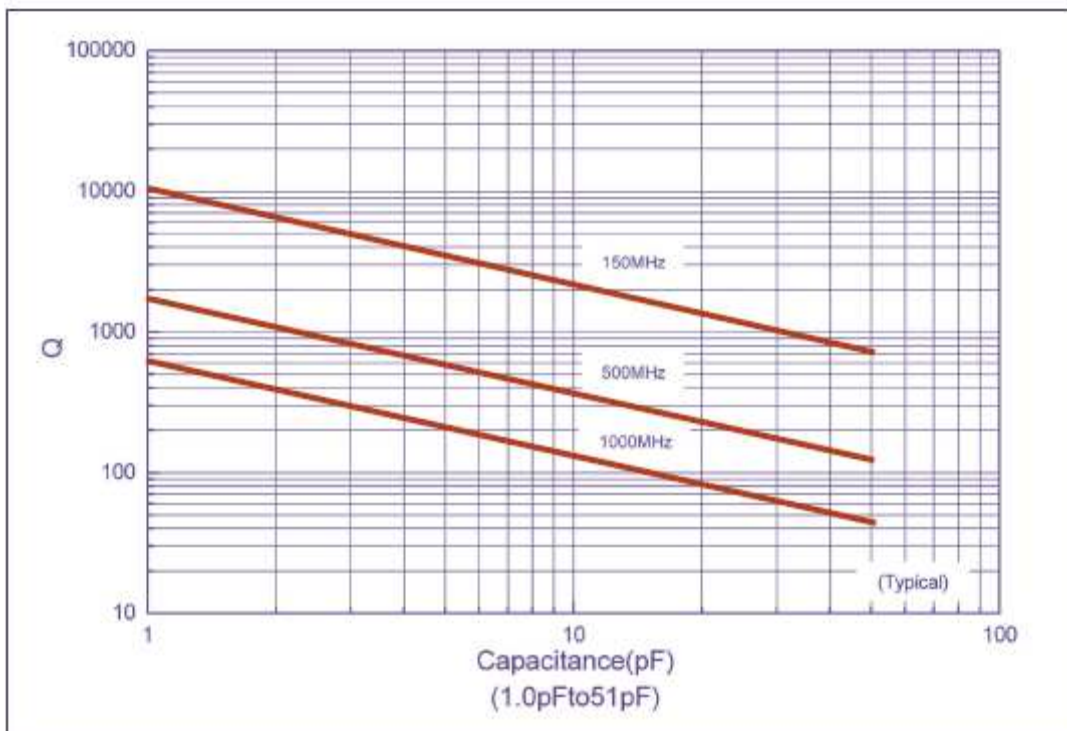
Series	Term Code	Type	Outlines	Capacitor Dimensions			Lead Dimension		
				L	W	T	L _L	W _L	T _L
70B	MN (non-mag)	 Microstrip		0.14	0.11	0.10	0.25	0.09	0.004
				(3.43)	(2.79)	(2.54)	(6.35)	(2.36)	(0.1)
70B	AN (non-mag)	 Axial Ribbon		0.14	0.11	0.10	0.25	0.09	0.004
				(3.43)	(2.79)	(2.54)	(6.35)	(2.36)	(0.1)

Lead material: silver-plated copper

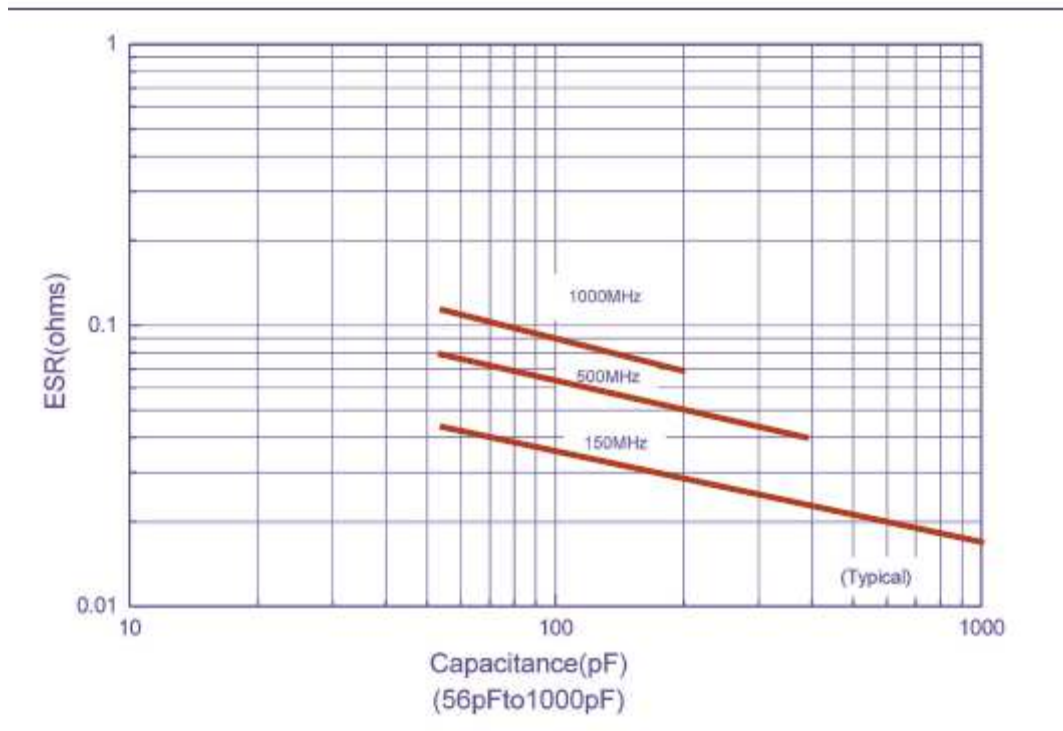
ESR VS Capacitance



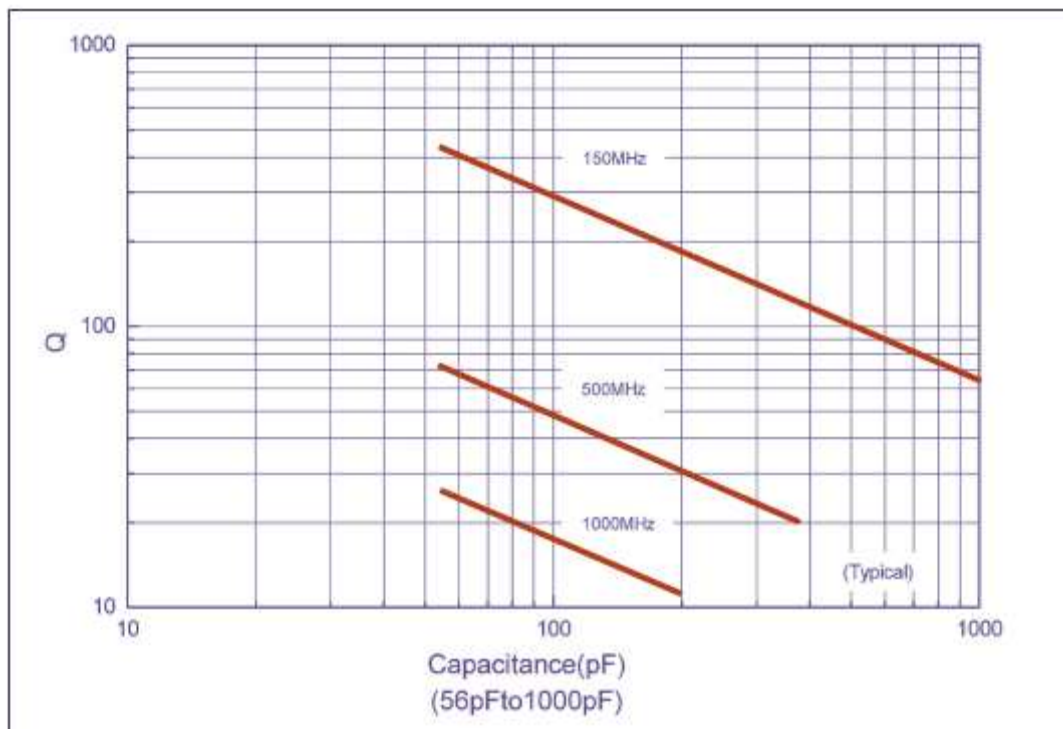
Q VS Capacitance



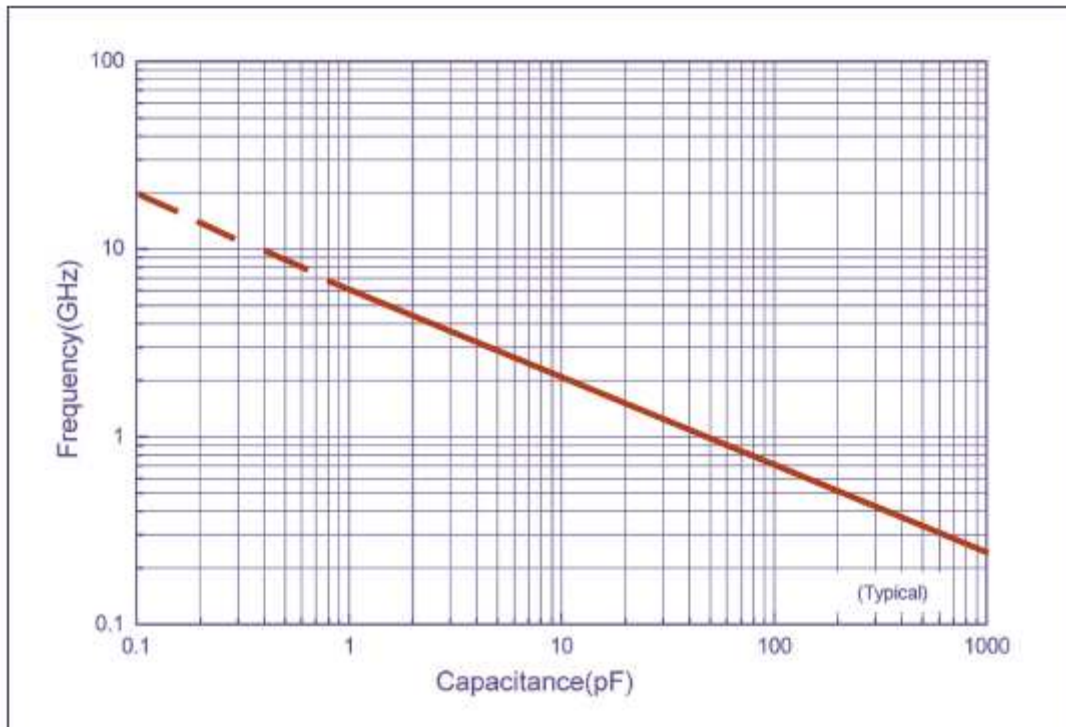
ESR VS Capacitance



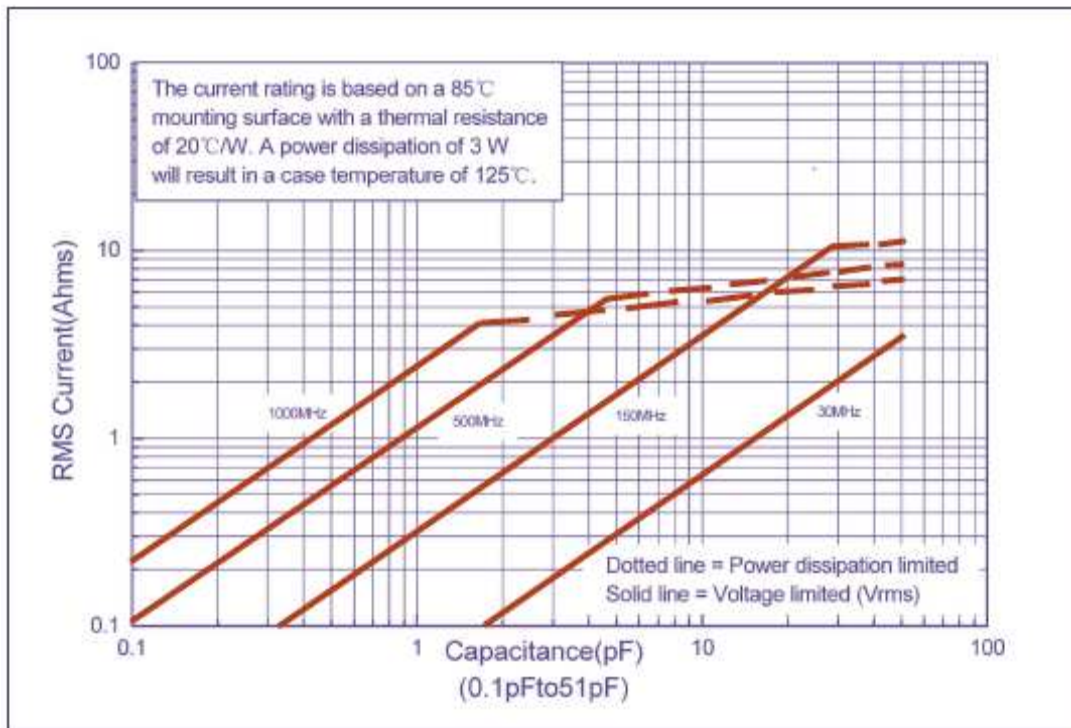
Q VS Capacitance



Series resonance VS Capacitance



Current rating VS Capacitance



Current rating VS Capacitance

