

DLC75P Series
◆ DLC75P Series Rated Capacitance & Rated Voltage Table

Cap.pF	Code	Tol.	Rated WVDC	Cap.pF	Code	Tol.	Rated WVDC	Cap.pF	Code	Tol.	Rated WVDC
0.1	0R1	A,B, C,D	250V Code 251	2.2	2R2	A,B, C,D	250V Code 251	16	160	F,G, J,K	250V Code 251
0.2	0R2			2.4	2R4			18	180		
0.3	0R3			2.7	2R7			20	200		
0.4	0R4			3.0	3R0			22	220		
0.5	0R5			3.3	3R3			24	240		
0.6	0R6			3.6	3R6			27	270		
0.7	0R7			3.9	3R9			30	300		
0.8	0R8			4.3	4R3			33	330		
0.9	0R9			4.7	4R7			36	360		
1.0	1R0			5.1	5R1	39		390			
1.1	1R1			5.6	5R6	43		430			
1.2	1R2			6.2	6R2	47		470			
1.3	1R3			6.8	6R8	51		510			
1.4	1R4			7.5	7R5	56		560			
1.5	1R5			8.2	8R2	62		620			
1.6	1R6			9.1	9R1	68		680			
1.7	1R7			10	100	75		750			
1.8	1R8			11	110	82		820			
1.9	1R9			12	120	91		910			
2.0	2R0			13	130	100		101			
2.1	2R1			15	150						

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

◆ Performance

Item	Specifications
Quality Factor (Q)	2,000 min.
Insulation Resistance (IR)	10 ⁵ Megohms min. @ +25°C at rated WVDC. 10 ⁴ Megohms min. @ +125°C at rated WVDC.
Rated Voltage	250V
Dielectric Withstanding Voltage(DWV)	250% of rated Voltage 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

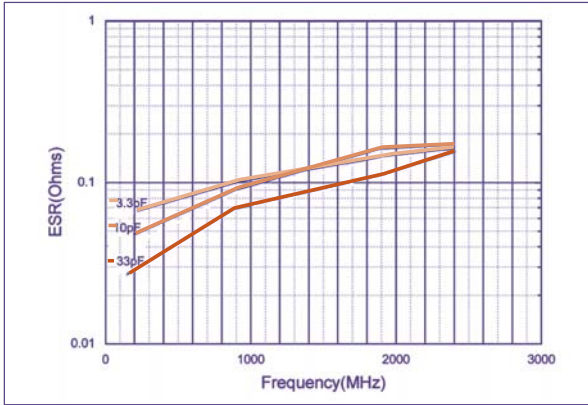
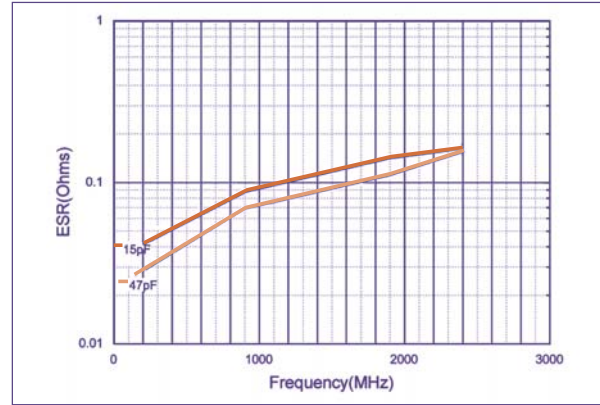
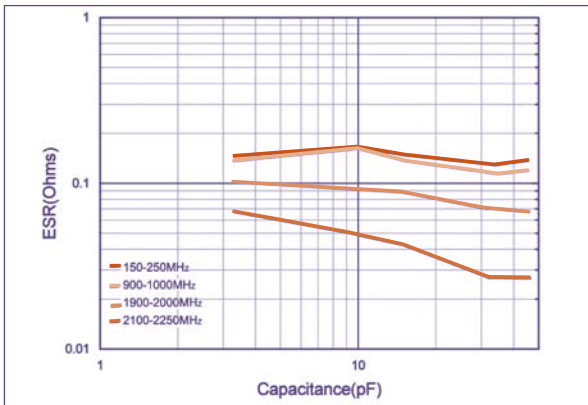
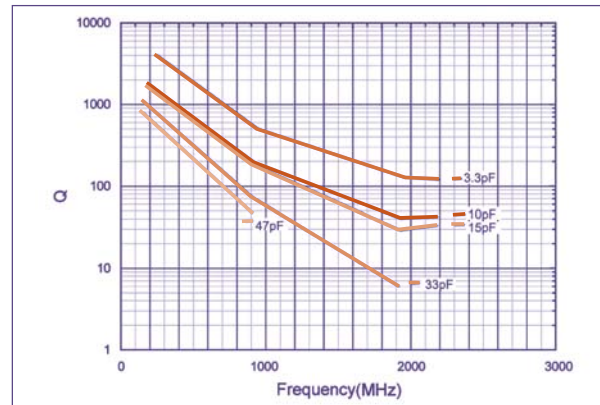
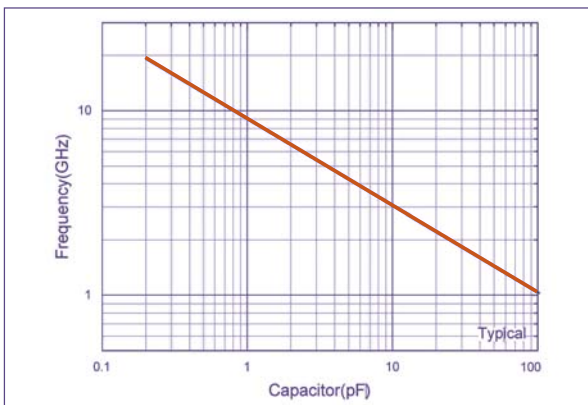
◆ Environmental Tests

Item	Specifications	Method
Terminal Adhesion	Termination should not pull off, Ceramic should remain undamaged.	Linear pull force exerted on axial leads soldered to each terminal. 2.0lbs.
Resistance to soldering heat	No mechanical damage Capacitance change: $-1.0\% \sim +2.0\%$ $Q > 500$ I.R. $> 10 \text{ G Ohms}$ Breakdown voltage: $2.5 \times \text{WVDC}$	Preheat device to $150^{\circ}\text{C} - 180^{\circ}\text{C}$ for 60 sec. Dip in $260^{\circ}\pm 5^{\circ}\text{C}$ solder for 10 ± 1 sec. Measure after 24 ± 2 hour cooling period
Thermal shock	No mechanical damage Capacitance change: $\pm 0.5\%$ or 0.5pF max $Q > 500$ I.R. $> 10 \text{ G Ohms}$ Breakdown voltage: $2.5 \times \text{WVDC}$	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.
Humidity, Steady state	No mechanical damage Capacitance change: $\pm 0.5\%$ or 0.5pF max . $Q > 300$ I.R. $> 1 \text{ G Ohms}$ Breakdown voltage: $2.5 \times \text{WVDC}$	MIL-STD-202, Method 106.
Low voltage humidity	No mechanical damage Capacitance change: $\pm 0.3\%$ or 0.3pF max . $Q > 300$ I.R. $> 1 \text{ G Ohms}$ Breakdown voltage: $2.5 \times \text{WVDC}$	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	No mechanical damage Capacitance change: $\pm 2.0\%$ or 0.5pF max . $Q > 500$ I.R. $> 1 \text{ G Ohms}$ Breakdown voltage: $2.5 \times \text{WVDC}$	MIL-STD-202, Method 108, for 1000 hours, at 125°C . 200% Rated voltage D.C. applied.

◆ DLC75P Chip Dimensions

unit: inch (millimeter)

	Length	width	Thickness
DLC75P Chip Dimensions	$.060 \pm .006$ (1.52 ± 0.15)	$.030 \pm .006$ (0.81 ± 0.15)	$.030 + .005 \sim -.003$ ($0.76 + 0.13 \sim -0.08$)

◆ DLC75P Performance Curve
ESR VS Frequency

ESR VS Frequency

ESR VS Capacitance

Q Factor VS Frequency

Series Resonant Frequency VS Capacitor

Q Factor
