

DLC75D Series

◆DLC75D 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	2.4	2R4	A,B, C,D	250V Code 251	20	200	F,G, J,K	250V Code 251
0.2	0R2			2.7	2R7			22	220		
0.3	0R3			3.0	3R0			24	240		
0.4	0R4			3.3	3R3			27	270		
0.5	0R5			3.6	3R6			30	300		
0.6	0R6			3.9	3R9			33	330		
0.7	0R7			4.3	4R3			36	360		
0.8	0R8			4.7	4R7			39	390		
0.9	0R9			5.1	5R1			43	430		
1.0	1R0			5.6	5R6			47	470		
1.1	1R1			6.2	6R2	51		510			
1.2	1R2			6.8	6R8	56		560			
1.3	1R3			7.5	7R5	62		620			
1.4	1R4			8.2	8R2	68		680			
1.5	1R5			9.1	9R1	75		750			
1.6	1R6			10	100	82		820			
1.7	1R7			11	110	91		910			
1.8	1R8			12	120	100		101			
1.9	1R9			13	130	120		121			
2.0	2R0			15	150	150		151			
2.1	2R1			16	160	180		181			
2.2	2R2			18	180	220		221			

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.

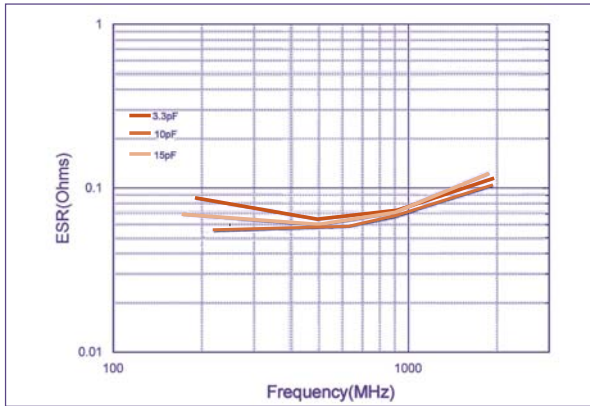
◆ DLC75D Chip Dimensions

unit: inch (millimeter)

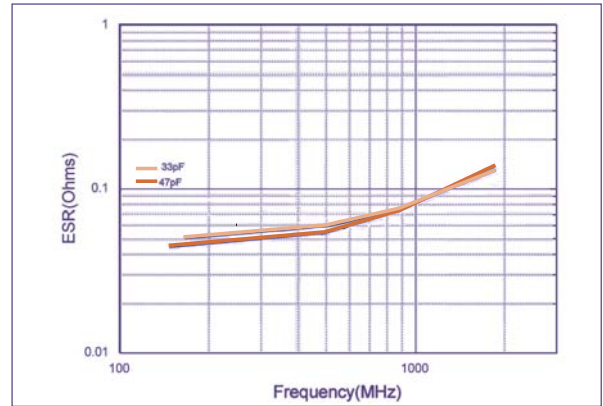
	Length	width	Thickness
DLC75D Chip Dimensions	$.080 \pm .01$ ($2.0+0.25 \sim -0.25$)	$.050 \pm .01$ (1.2 ± 0.25)	$.057(1.45)$ max

◆ DLC75D Performance Curve

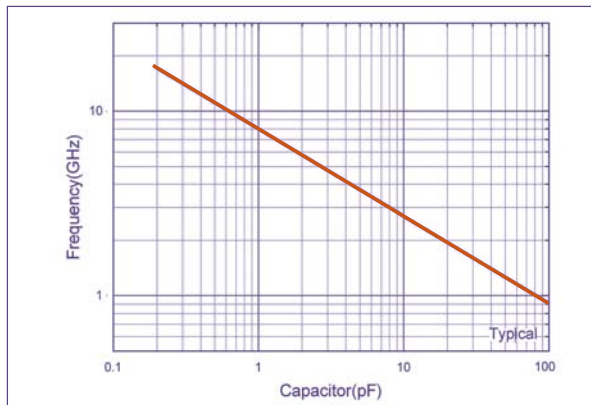
ESR VS Frequency



ESR VS Frequency



Series Resonant Frequency VS Capacitor



Q Factor VS Frequency

