

DLC10D Series

◆Product Features

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



◆DLC10D Series Rated Capacitance Table

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

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

◆DLC10D Chip Dimensions

unit:inch(millimeter)

	Length	width	Thickness
DLC10D Chip Dimensions	.08 ± .010 (2.0 ± 0.25)	.050 ± .010 (1.2 ± 0.25)	.057(1.45)max

◆ Performance

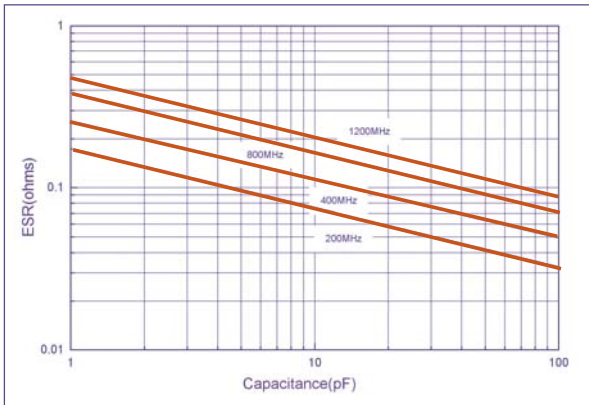
Item	Specifications
Quality Factor (Q)	greater than 10,000 at 1 MHz
Insulation Resistance (IR)	10 ⁶ Megohms min. @ +25°C at rated WVDC. 10 ⁵ Megohms min. @ +125°C at rated WVDC.
Rated Voltage	See Rated Voltage Table
Dielectric Withstanding Voltage(DWV)	250% of rated Voltage for 5 seconds.
Operating Temperature Range	-55°C to +125°C
Temperature Coefficient (TC)	+90 ± 20ppm/°C
Capacitance Drift	± 0.02% or ± 0.02pF, whichever is greater.
Piezoelectric Effects	None
Termination Type	See Termination Type Table

◆ Environmental Tests

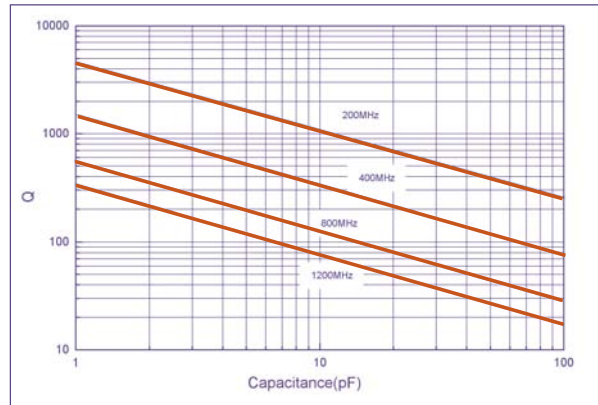
Item	Specifications	Method
Thermal shock	DWV: the initial value IR: Shall be not less than 30% the initial value Capacitance change: no more than 0.5% or 0.5pF.	MIL-STD-202, Method 107, Condition A. At the maximum rated temperature(-55°C and 125°C) stay 30 minutes,The time of removing shall be not more 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.

◆ **DLC10D Performance Curve**

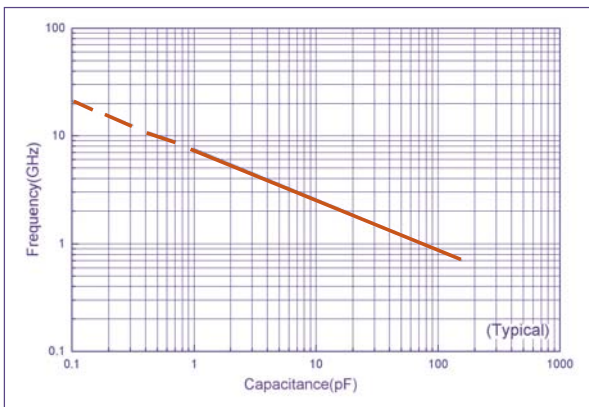
ESR VS Capacitance



Q VS Capacitance



Series resonance VS Capacitance



Current rating VS Capacitance

