



DLC70D High Q. RF/Microwave Multilayer Chip Ceramic Capacitors

DLC70D(.080" x.050")

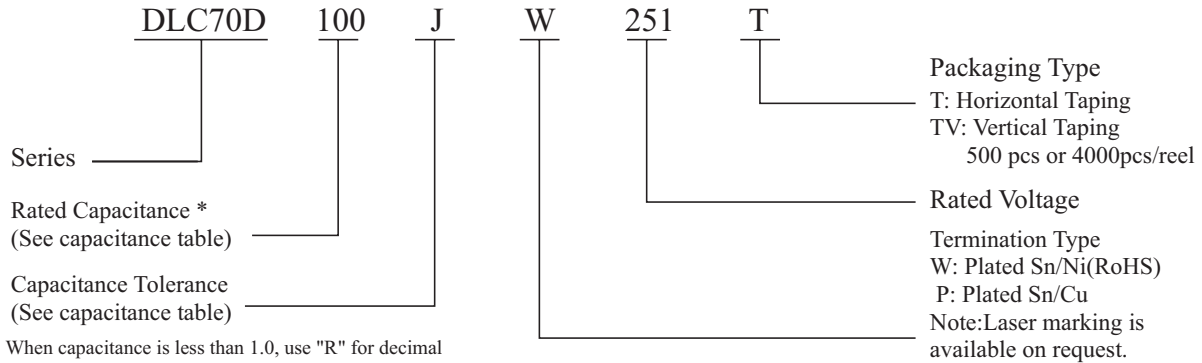
DLC70D (.080" x .050")

◆ DLC70D 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	3.0	3R0	A,B, C,D	250V Code 251	30	300	F,G, J	250V Code 251
0.2	0R2			3.3	3R3			33	330		
0.3	0R3			3.6	3R6			36	360		
0.4	0R4			3.9	3R9			39	390		
0.5	0R5			4.3	4R3			43	430		
0.6	0R6			4.7	4R7			47	470		
0.7	0R7			5.1	5R1			51	510		
0.8	0R8			5.6	5R6			56	560		
0.9	0R9			6.2	6R2			62	620		
1.0	1R0			6.8	6R8	68		680			
1.1	1R1			7.5	7R5	75		750			
1.2	1R2			8.2	8R2	82		820			
1.3	1R3			9.1	9R1	91		910			
1.4	1R4			10	100	100		101			
1.5	1R5			11	110	120		121			
1.6	1R6			12	120	150		151			
1.7	1R7			13	130						
1.8	1R8			15	150						
1.9	1R9			16	160						
2.0	2R0			18	180						
2.1	2R1			20	200						
2.2	2R2			22	220						
2.4	2R4			24	240						
2.7	2R7			27	270						

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

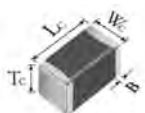

◆ **Part Numbering**



Code	A	B	C	D	F	G	J
Tolerance	± 0.05pF	± 0.1pF	± 0.25pF	± 0.5pF	± 1%	± 2%	± 5%

◆ **DLC70D Capacitor Dimensions**

unit:inch(millimeter)

Series	Term. Code	Type / Outlines	Capacitor Dimensions				Plated Material
			Length (Lc)	Width (Wc)	Thickness (Tc)	Overlap (B)	
DLC70D	W	 Chip	.080 ± .010 (2.03 ± 0.25)	.050 ± .010 (1.27 ± 0.25)	.057 (1.45) max	.014~.028 (0.35~0.70)	Sn/Ni (RoHS)
	L						90 Sn10Pb/Ni
DLC70D	P (Non-Mag)	 Chip Non-Mag					Sn/Cu (RoHS)

◆ **Design Kits**

These capacitors are 100% RoHS. Kits are available in Magnetic and Non-Magnetic that contain 10(ten) pieces per value; number of values per kit varies, depending on case size and capacitance.

Kit	Description (pF)	Values (pF)	Tolerance
DKDLC70D01	0.1 - 2.0	0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.2, 1.5, 1.6, 1.8, 2.0	± 0.10pF
DKDLC70D02	1.0 - 10	1.0, 1.2, 1.5, 1.8, 2.0, 2.2, 2.4, 2.7, 3.0, 3.3, 3.9, 4.7, 5.6, 6.8, 8.2	± 0.10pF
		10	± 5%
DKDLC70D03	10 - 68	10, 12, 15, 18, 20, 22, 24, 27, 30, 33, 39, 47, 56, 68	± 5%



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◆ Performance

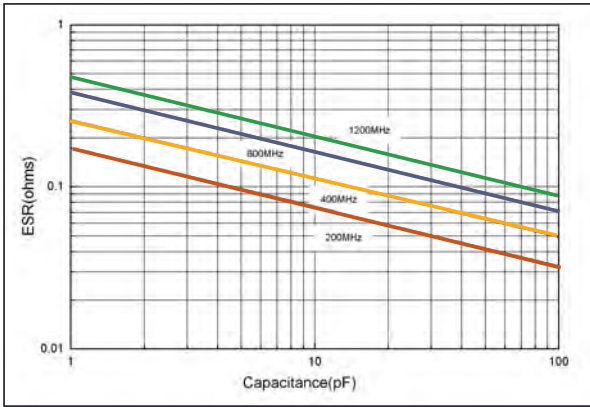
Item	Specifications
Quality Factor (Q)	2,000 min.
Insulation Resistance (IR)	10 ⁵ Megohms min. @ +25°C at rated WVDC. 10 ⁴ Megohms min. @ +125°C at rated WVDC.
Rated Voltage	250V
Dielectric Withstanding Voltage (DWV)	250% of rated voltage for 5 seconds.
Operating Temperature Range	-55°C to +200°C
Temperature Coefficient (TC)	0 ± 30 ppm/°C (-55°C to +175°C)
Capacitance Drift	± 0.02% or ± 0.02pF, whichever is greater.
Piezoelectric Effects	None

◆ Environmental Tests

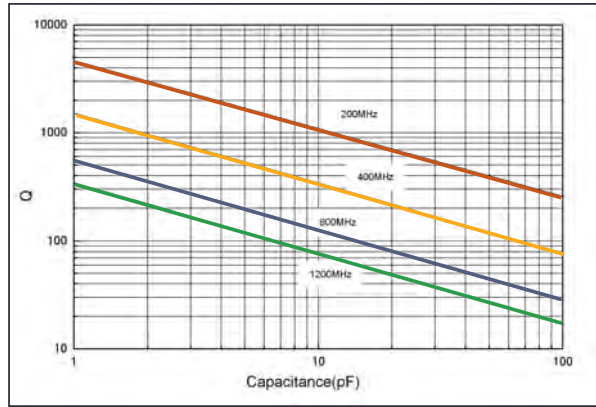
Item	Specifications	Method
Thermal Shock	DWV: the initial value IR: Shall not be less than 30% of the initial value Capacitance change: no more than 0.5% or 0.5pF, whichever is greater.	MIL-STD-202, Method 107, Condition A. At the maximum rated temperature(-55°C and 200°C) stay 30 minutes. The time of removing shall not be 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, whichever is greater.	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 2.0% or 0.5pF, whichever is greater.	MIL-STD-202, Method 108, for 2000 hours, at 200°C. 200% Rated voltage D.C. applies

◆ **DLC70D Electrical Performance**

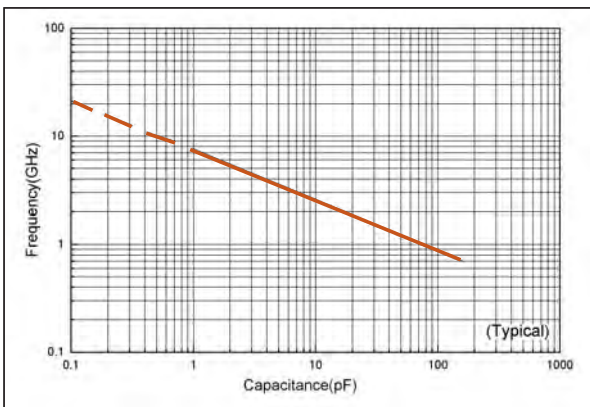
ESR vs Capacitance



Q vs Capacitance



FSR vs Capacitance



Current Rating vs Capacitance

