



DLC70R High Q. RF/Microwave Multilayer Chip Ceramic Capacitors

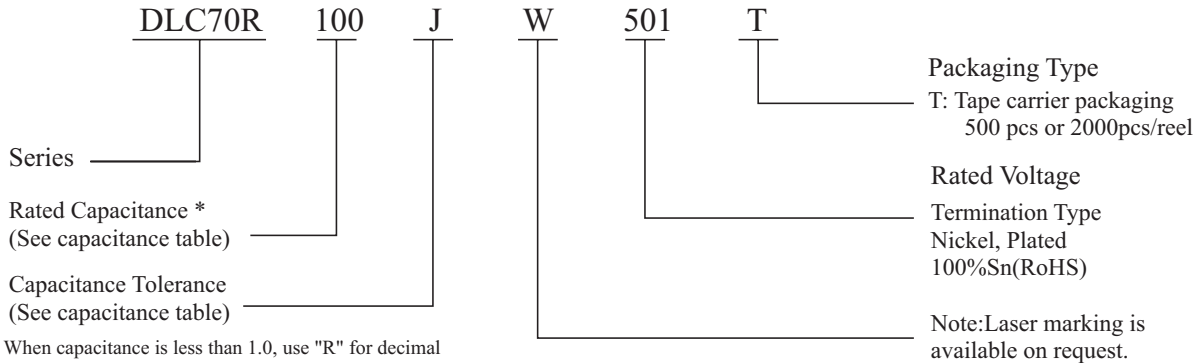
DLC70R(.070" x .100")

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◆ DLC70R Capacitance & Rated Voltage Table

Cap.pF	Code	Tol.	Rated WVDC	Cap.pF	Code	Tol.	Rated WVDC	Cap.pF	Code	Tol.	Rated WVDC
1.0	1R0	B, C,D	500V Code 501	3.9	3R9	B, C,D	500V Code 501	22	220	G, J	500V Code 501
1.1	1R1			4.3	4R3			24	240		
1.2	1R2			4.7	4R7			27	270		
1.3	1R3			5.1	5R1			30	300		
1.4	1R4			5.6	5R6			33	330		
1.5	1R5			6.2	6R2			36	360		
1.6	1R6			6.8	6R8			39	390		
1.7	1R7			7.5	7R5			43	430		
1.8	1R8			8.2	8R2			47	470		
1.9	1R9			9.1	9R1	51		510			
2.0	2R0			10	100	56		560			
2.1	2R1			11	110	62		620			
2.2	2R2			12	120	68		680			
2.4	2R4			13	130	75		750			
2.7	2R7			15	150	82		820			
3.0	3R0			16	160	91		910			
3.3	3R3			18	180	100		101			
3.6	3R6			20	200						

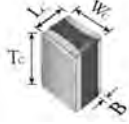
◆ **Part Numbering**



Code	B	C	D	G	J	K	
Tolerance	± 0.1pF	± 0.25pF	± 0.5pF	± 2%	± 5%	± 10%	

◆ **DLC70R Capacitor Dimensions**

unit:inch(millimeter)

Series	Term. Code	Type / Outlines	Capacitor Dimensions			Plated Material
			Length (L _c)	Width (W _c)	Thickness (T _c)	
DLC70R	W	 <p>Chip</p>	.070 ± .015 (1.78 ± 0.38)	.100 ± .015 (2.54 ± 0.38)	.120 (3.05) max	Sn/Ni (RoHS)



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◆ Performance

Item	Specifications
Quality Factor (Q)	Greater than 5000 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, Rated Voltage ≤ 500VDC
Operating Temperature Range	-55°C to +175°C
Temperature Coefficient (TC)	0 ± 30 ppm/°C (-55°C to +125°C)
Capacitance Drift	± 0.02% or ± 0.02pF, whichever is greater.
Piezoelectric Effects	None
Termination Type	See Termination Type Table

Capacitors are designed and manufactured to meet the requirements of MIL-PRF-55681 and MIL-PRF-123.

◆ Environmental Tests

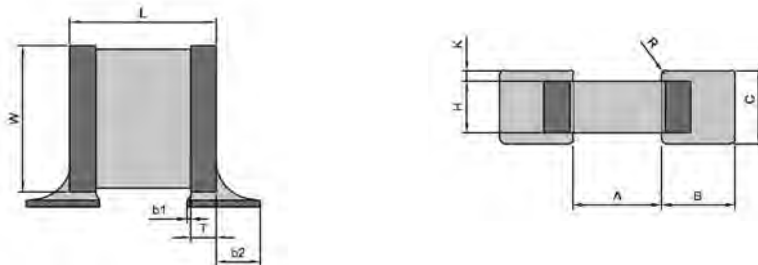
Item	Specifications	Method
Thermal Shock	DWV: the initial value IR: Shall not be less than 30% of the initial value Capacitance change: no more than 0.5% or 0.5pF. whichever is greater.	MIL-STD-202, Method 107, Condition A. At the maximum rated temperature (-55°C and 125°C) stay 30 minutes. The time 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 125°C. 200% Rated Voltage DC applied.

◆ **Recommended Land Pattern Dimensions**

When mounting the capacitor to substrate, it's important to carefully consider that the amount of solder (size of fillet) used has a direct effect upon the capacitor once it's mounted.

- 1) The greater the amount of solder, the greater the stress to the elements. This may cause the substrate to break or crack.
- 2) In the situation where two or more devices are mounted onto a common land, be sure to separate the device into exclusive pads by using soldering resist.

Orientation	EIA	A	B	C
Vertical	0710	0.90	1.00	2.90



◆ **Tape & Reel Specifications**

Orientation	EIA	A0	B0	K0	W	P0	P1	T	F	Qty/Min	Qty/reel	Tape Material
Vertical	0710	1.90	2.65	2.20	12.00	4.00	4.00	0.30	5.50	500	1500	Plastic

