DLC75A (.050" x .050")

◆DLC75A Capacitance & Rated Voltage Table

Cap.pF	Code	Tol.	Rated WVDC	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	150V Code 151 or 300V Code 301	2.4	2R4	A, B, C, D	150V Code 151 or 300V Code 301	20	200	F, G, J,	150V Code 151 or 300V Code 301	160	161	F, G, J,	150V Code 151 or 200V Code 201
0.2	0R2			2.7	2R7			22	220			180	181		
0.3	0R3			3.0	3R0			24	240			200	201		
0.4	0R4			3.3	3R3			27	270			220	221		
0.5	0R5			3.6	3R6			30	300			240	241		
0.6	0R6			3.9	3R9			33	330			270	271		
0.7	0R7			4.3	4R3			36	360			300	301		
0.8	0R8			4.7	4R7			39	390			330	331		150V Code 151
0.9	0R9			5.1	5R1			43	430			360	361		
1.0	1R0			5.6	5R6			47	470			390	391		
1.1	1R1			6.2	6R2			51	510		150V Code 151 or 200V Code 201	430	431		
1.2	1R2			6.8	6R8	B, C, J		56	560			470	471		
1.3	1R3			7.5	7R5			62	620			510	511		
1.4	1R4			8.2	8R2			68	680			560	561		
1.5	1R5			9.1	9R1			75	750			620	621		
1.6	1R6			10	100	F, G, J		82	820			680	681		50V Code 500 or 100V Code 101
1.7	1R7			11	110			91	910			750	751		
1.8	1R8			12	120			100	101			820	821		
1.9	1R9			13	130			110	111			910	911		
2.0	2R0			15	150			120	121			1000	102		
2.1	2R1			16	160			130	131						
2.2	2R2			18	180			150	151						

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

◆Part Numbering

DLC75A 100 J W 151 X T

- DLC75A: DLC75=NP0
- 100: Capacitor Code 100=10×10⁰=10pF; 1R0=1.0pF
- J: Capacitance Tolerance: See below list
- W: Termination Type
- 151: Rated Voltage
- X: Laser Marking
- T: Packaging Type
  - T- Chip capacitor, Tape & Reel (7") 500,1000,2000,3000 pcs/Reel
  - TV- Chip capacitor Vertical Orientation Tape & Reel, 500,1000,2000 pcs/Reel

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

◆DLC75A Chip Dimensions

unit:inch(millimeter)

Series	Term. Code	Type / Outlines	Capacitor Dimensions				Plated Material
			Length (L_C)	Width (W_C)	Thickness (T_C)	Overlap (B)	
DLC75A	W	 Chip	.055 +.015~−.010 (1.40+ 0.38~ −0.25)	.055 ±.010 (1.40 ±0.25)	.057 (1.45) max	.024 (0.6) max	100% Sn Solder over Nickel Plating
	L						90 Sn10Pb Solder over Nickel Plating

◆Design Kits

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

Kit	Description (pF)	Values (pF)	Tolerance
DKDLC75A01	0.2 - 10	0.2, 0.5, 0.7, 0.8, 1.0, 1.2, 1.5, 1.8, 2.0, 2.4, 2.7, 3.0, 3.3, 3.9,	±0.10pF
		4.7, 5.6, 6.8, 8.2	±0.10pF
		10	±5%
DKDLC75A02	10 - 100	10, 12, 15, 18, 20, 22, 24, 27, 30, 33, 39, 47, 56, 68, 82, 100	±5%
DKDLC75A03	100 - 1000	100, 120, 150, 180, 200, 220, 240, 270, 300, 390, 470, 560, 680, 820, 1000	±5%

◆Performance

Item	Specifications
Quality Factor (Q)	2,000 min.
Insulation Resistance (IR)	10^5 Megohms min. @ +25℃ at rated WVDC. 10^4 Megohms min. @ +125℃ at rated WVDC.
Rated Voltage	See capacitance table
Dielectric Withstanding Voltage (DWV)	250% of rated voltage for 5 seconds.
Operating Temperature Range	−55℃ to +175℃
Temperature Coefficient (TC)	0±30ppm/℃
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% ~+2.0% Q>500 I.R. >10 G Ohms Breakdown voltage: 2.5 x WVDC	Preheat device to 150°C-180°C for 60 sec. Dip in 260°±5°C solder for 10±1 sec. Measure after 24±2 hours cooling period.
Thermal Shock	No mechanical damage Capacitance change:±0.5% or 0.5pF max Q>2000 I.R. >10 G Ohms Breakdown voltage: 2.5 x 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 not be more than 3 minutes. Perform the five cycles.
Humidity, Steady State	No mechanical damage Capacitance change: ±0.5% or 0.5pF max. Q>300 I.R. >1 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 106.
Low Voltage Humidity	No mechanical damage Capacitance change: ±0.3% or 0.3pF max. Q>300 I.R. >1 G Ohms Breakdown voltage: 2.5 x 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 minimum.
Life	No mechanical damage Capacitance change: ±2.0% or 0.5pF max. Q>500 I.R. >1 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 108, for 1000 hours, at 125°C. 200% Rated voltage D.C. applied.