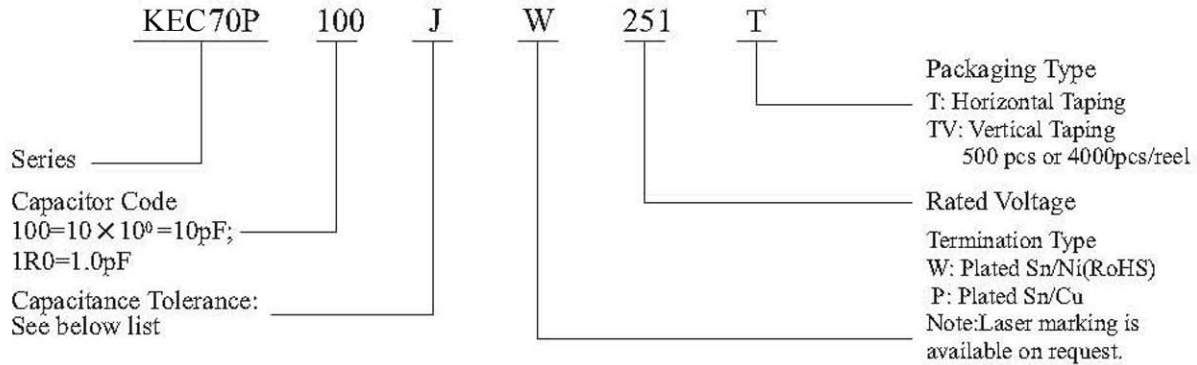


KEC70P (.060" x .030")

◆ KEC70P Capacitance 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	2.2	2R2	A,B, C,D	250V Code 251	16	160	F,G, J	250V Code 251
0.2	0R2			2.4	2R4			18	180		
0.3	0R3			2.7	2R7			20	200		
0.4	0R4			3.0	3R0			22	220		
0.5	0R5			3.3	3R3			24	240		
0.6	0R6			3.6	3R6			27	270		
0.7	0R7			3.9	3R9			30	300		
0.8	0R8			4.3	4R3			33	330		
0.9	0R9			4.7	4R7			36	360		
1.0	1R0			5.1	5R1			39	390		
1.1	1R1			5.6	5R6			43	430		
1.2	1R2			6.2	6R2	47		470			
1.3	1R3			6.8	6R8	51		510			
1.4	1R4			7.5	7R5	56		560			
1.5	1R5			8.2	8R2	62		620			
1.6	1R6			9.1	9R1	68		680			
1.7	1R7			10	100						
1.8	1R8			11	110						
1.9	1R9			12	120						
2.0	2R0			13	130						
2.1	2R1			15	150						

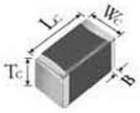
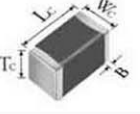
◆ **Part Numbering**



Code	A	B	C	D	F	G	J
Tolerance	$\pm 0.05\text{pF}$	$\pm 0.1\text{pF}$	$\pm 0.25\text{pF}$	$\pm 0.5\text{pF}$	$\pm 1\%$	$\pm 2\%$	$\pm 5\%$

◆ **KEC70P Capacitor Dimensions**

unit: inch(millimeter)

Series	Term. Code	Type / Outlines	Capacitor Dimensions			Plated Material
			Length (Lc)	Width (Wc)	Thickness (Tc)	
KEC70P	W	 Chip	$.060 \pm .006$ (1.52 ± 0.15)	$.030 \pm .006$ (0.81 ± 0.15)	$.030 + .005$ $\sim -.003$ $(0.76 + 0.13$ $\sim -.008)$	Sn/Ni (RoHS)
	L					90 Sn10Pb/Ni
KEC70P	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
DKKEC70P01	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	$\pm 0.10\text{pF}$
DKKEC70P02	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	$\pm 0.10\text{pF}$
		10	$\pm 5\%$
DKKEC70P03	10 - 68	10, 12, 15, 18, 20, 22, 24, 27, 30, 33, 39, 47, 56, 68	$\pm 5\%$

◆ 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

◆ KEC70P Electrical Performance

ESR vs Frequency

