Ultra-Miniature 01005 Size Accu-P®
Thin-Film RF Microwave Capacitor

AVX RF

ACCU-P® TECHNOLOGY

The use of silicon oxide, a very low - loss dielectric material, in conjunction with highly conductive electrode metals, results in low ESR and high Q. These high - frequency characteristics change at a slower rate with increasing frequency than for ceramic microwave capacitors.

ACCU-P® meets the fast - growing demand for low - loss (high - Q) capacitors for use in surface mount technology, especially for the wireless communications market at frequencies up to and above 5.8GHz.

ACCU-P® is currently unique in its ability to offer very low capacitance values (0.05 pF) and ultra tight capacitance tolerances (±0.01 pF).

APPLICATIONS

- RF Modules
- Mobile communications
- Satellite TV
- Global positioning systems
- Filters
- VCO's
- Matching networks

FEATURES

- Ultra Miniature standard 01005 chip size.
- Ultra tight capacitance tolerances (±0.01pF).
- Low ESR and high Q at VHF, UHF and microwave frequencies.
- TC ±30, ±60ppm/°C.
- Nickel/Solder - coated terminations provide excellent solderability and leach resistance.
- High insulation resistance: IR ≥ 10^{10} Ohm.
- Orientation provides high SRF uniformity.
- Repeatable C_{EFF}, ESR and Q vs. Frequency parameters, both lot to lot and within lots, for increased production yields.

HOW TO ORDER

C005	Y	X	XXX	X	B	S	TR
Series	**Voltage** Y = 16V	**Temperature Coefficient**	**Capacitance (pF)**	**Tolerance**	**Accu-P**	**Lead Free Termination**	**Packaging Code** 5000 pc reel TR/10K = 10,000 pc reel TR/20K = 20,000 pc reel

P/N Example: C 0 0 5 Y K 1 R 0 A B S T R

QUALITY AND RELIABILITY

Finished parts are tested for standard electrical parameters and visual / mechanical characteristics.

Each production lot is 100% evaluated for:
- Capacitance
- Q Factor
- DWV at 12.5xV_{RATED}

Each production lot is evaluated on a sample basis for:
- Dimensions
- Insulation Resistance
- Breakdown Voltage
- ESR
- Solderability

In addition, production is periodically evaluated for:
- Mechanical stability
- Endurance (Life)
- Temperature Coefficient
- Accelerated Damp Heat Load (THB)
- Temperature Cycling

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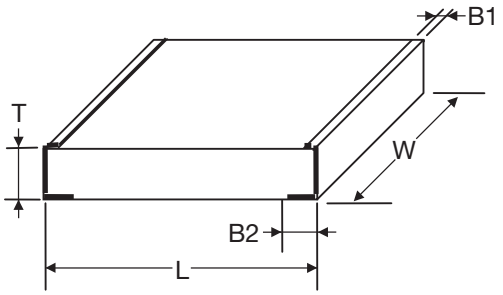
ACCU-P® 01005 CAPACITANCE RANGE

Capacitance [pF]	Part Number	Tolerances Z = ±0.01pF P = ±0.02pF Q = ±0.03pF A = ±0.05pF	TC J = ±30ppm/°C K = ±60ppm/°C	Voltage (V)
0.05	C005YJR05_BSTR	Z, P, Q, A	J	16
0.10	C005YJ0R1_BSTR	Z, P, Q, A	J	16
0.15	C005YJR15_BSTR	Z, P, Q, A	J	16
0.20	C005YJ0R2_BSTR	Z, P, Q, A	J	16
0.25	C005YJR25_BSTR	Z, P, Q, A	J	16
0.30	C005YJ0R3_BSTR	Z, P, Q, A	J	16
0.35	C005YJR35_BSTR	Z, P, Q, A	J	16
0.40	C005YJ0R4_BSTR	Z, P, Q, A	J	16
0.45	C005YJR45_BSTR	Z, P, Q, A	J	16
0.50	C005YJ0R5_BSTR	Z, P, Q, A	J	16
0.55	C005YJR55_BSTR	P, Q, A	J	16
0.60	C005YJ0R6_BSTR	P, Q, A	J	16
0.65	C005YJR65_BSTR	P, Q, A	J	16
0.70	C005YJ0R7_BSTR	P, Q, A	J	16
0.75	C005YJR75_BSTR	P, Q, A	K	16
0.80	C005YK0R8_BSTR	P, Q, A	K	16
0.85	C005YKR85_BSTR	P, Q, A	K	16

Capacitance [pF]	Part Number	Tolerances Z = ±0.01pF P = ±0.02pF Q = ±0.03pF A = ±0.05pF	TC J = ±30ppm/°C K = ±60ppm/°C	Voltage (V)
0.90	C005YK0R9_BSTR	P, Q, A	K	16
0.95	C005YKR95_BSTR	P, Q, A	K	16
1.00	C005YK1R0_BSTR	P, Q, A	K	16
1.10	C005YK1R1_BSTR	P, Q, A	K	16
1.20	C005YK1R2_BSTR	P, Q, A	K	16
1.30	C005YK1R3_BSTR	P, Q, A	K	16
1.40	C005YK1R4_BSTR	P, Q, A	K	16
1.50	C005YK1R5_BSTR	P, Q, A	K	16
1.60	C005YK1R6_BSTR	P, Q, A	K	16
1.70	C005YK1R7_BSTR	P, Q, A	K	16
1.80	C005YK1R8_BSTR	P, Q, A	K	16
1.90	C005YK1R9_BSTR	P, Q, A	K	16
2.00	C005YK2R0_BSTR	P, Q, A	K	16
2.10	C005YK2R1_BSTR	P, Q, A	K	16
2.20	C005YK2R2_BSTR	P, Q, A	K	16
2.30	C005YK2R3_BSTR	P, Q, A	K	16
2.40	C005YK2R4_BSTR	P, Q, A	K	16

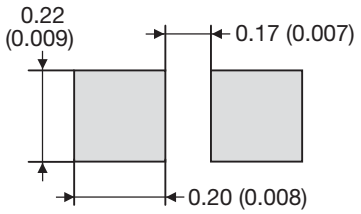
Intermediate capacitance values are available

DIMENSIONS - mm (inches)



L	0.405 ± 0.020 (0.016 ± 0.001)
W	0.215 ± 0.020 (0.0085 ± 0.001)
T	0.145 ± 0.020 (0.006 ± 0.001)
B	Top (B1): 0.0 +0.10/-0.0 (0.0 +0.004/-0.0)
	Bottom (B2): 0.10 ± 0.03 (0.004 ± 0.001)

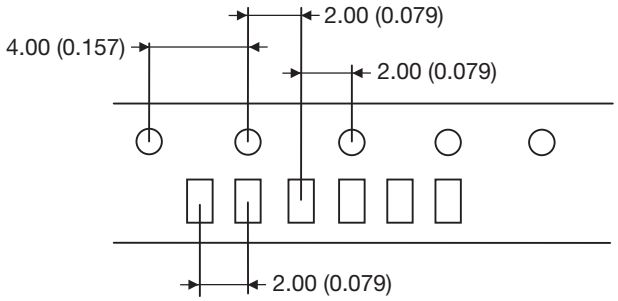
RECOMMENDED PAD LAYOUT - mm (inches)



PACKAGING SPECIFICATION - mm (inches)

Standard Packaging: 5,000 / 10,000 / 20,000pcs in 4" / 7" reels

Materials: Reel – Polystyrene
Tape – Paper: 8.00 (0.315)
Component pitch: 2.00 (0.079)



AVX