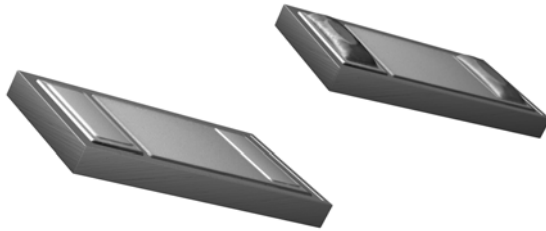


High Performance, High Precision and Lowest Profile 0402 Capacitor for Smart Card Applications


FEATURES

- New technology capacitor based on a special semiconductor process
- Low ESR
- Tight tolerance to $\pm 1\%$ or 0.05 pF
- Ultra high SRF
- Low parasitic inductance
- Capacitance range: 0.6 pF to 180 pF
- Low profile - 0.18 mm (0.007 inches)
- Wire bond (Type B) or SMD (Type C)

PATENTED
ELECTRICAL SPECIFICATIONS

Operating Temperature: - 55 °C to + 125 °C
Temperature Coefficient of Capacitance (TCC): 0 ± 30 ppm/°C
Insulation Resistance: $10^{11} \Omega$ min
Voltage: 2.5 x rated voltage for 5 seconds
Ageing: none

ENVIRONMENTAL SPECIFICATIONS

Life Test: 1000 hours, + 125 °C at 2 x rated voltage
Thermal Shock: 5 Cycles, - 55 °C/+ 125 °C
Moisture Resistance: 240 hours, 85 % RH, + 85 °C

APPLICATIONS

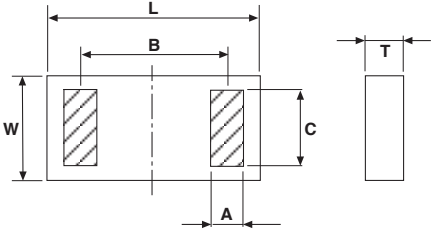
- Contactless Smart Cards

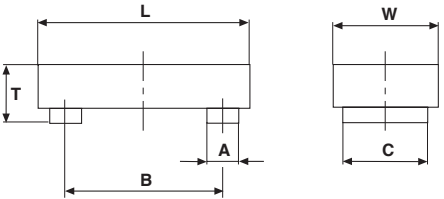
CAPACITANCE TOLERANCE CODE

FOR LESS THAN 10 pF			FOR 10 pF AND HIGHER		
A	B	C	F	G	J
± 0.05 pF	± 0.10 pF	± 0.25 pF	$\pm 1\%$	$\pm 2\%$	$\pm 5\%$

ORDERING INFORMATION

HPC	0402	B	101	G	G	X	T
MODEL	SIZE	TYPE	CAPACITANCE VALUE	CAPACITANCE TOLERANCE	TERMINATION	VOLTAGE	PACKAGING
		B or C B = WB C = SMD	The first two digits are significant, the third is a multiplier. An "R" indicates a decimal point. Examples: 101 = 100 pF Expressed in pF	see chart above	G = Gold bonding termination (B type) X = Tin/Lead termination (C type)	1 = 6 V Z = 10 V Y = 16 V X = 25 V	T = 10000 pcs T5 = 5000 pcs T1 = 1000 pcs tape and reel W = 20000 pcs on dicing frame (available on B type only)

TYPE B - DIMENSIONS			
	DIMENSION	INCHES	MILLIMETERS
	L	0.040 ± 0.002	1.02 ± 0.05
	W	0.020 ± 0.002	0.51 ± 0.05
	T	0.007 ± 0.001	0.18 ± 0.02
	A	0.006 ± 0.002	0.15 ± 0.05
	B	0.028 ± 0.002	0.71 ± 0.05
	C	0.014 ± 0.002	0.37 ± 0.05

TYPE C - DIMENSIONS			
	DIMENSION	INCHES	MILLIMETERS
	L	0.040 ± 0.002	1.02 ± 0.05
	W	0.020 ± 0.002	0.51 ± 0.05
	T	0.010 ± 0.002	0.25 ± 0.05
	A	0.006 ± 0.002	0.15 ± 0.05
	B	0.028 ± 0.002	0.71 ± 0.05
	C	0.014 ± 0.002	0.37 ± 0.05

CAPACITANCE RANGE AND VOLTAGE					
CAPACITANCE (pF)	CAPACITANCE CODE	VOLTAGE (V)			
		6	10	16	25
0.6	0R6				
0.7	0R7				
0.8	0R8				
0.9	0R9				
1.0	1R0				
1.2	1R2				
1.5	1R5				
1.8	1R8				
2.2	2R2				
2.7	2R7				
3.3	3R3				
3.9	3R9				
4.7	4R7				
5.6	5R6				
6.8	6R8				
8.2	8R2				
10	100				
12	120				
15	150				
18	180				
22	220				
27	270				
33	330				
39	390				
47	470				
56	560				
68	680				
82	820				
100	101				
120	121				
150	151				
180	181				