

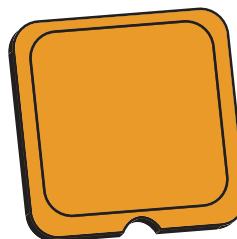
# Wire Bonding Silicon Vertical Capacitor

**WBSC0504 22nF (50V)**

**935.142.624.522**

The IPDiA Technology is the most appropriate solution for Chip On Board, Chip On Foil, Chip On Glass, Chip On Ceramic, Flip Chip and Embedded Applications, when designers are looking at Utmost Decoupling Behaviours.

This silicon based technology is RoHS compliant and compatible with lead free reflow soldering process.



## Key Applications

- Any Demanding Applications, such as Medical, Aerospace, Automotive Industrial.
- Applicable for Standard Wire Bonding Approach ( Ball and Wedge)
- High Reliability Applications
- Decoupling / Filtering / Charge Pump (ie. Pacemakers, Defibrillators)
- Downsizing

## Key Features

- Full Compatible to Monolithic Ceramic Capacitors
- Low Profile
- Ultra High Stability of Capacitance Value;
  - Temperature  $< \pm 1\%$  (-55 to +150°C)
  - Voltage  $< 0.1\%$  / V
  - Negligible Capacitance Loss through Ageing
- Custom Sizes, Values, Shapes, Tolerances and Higher Voltage
- Low Leakage Current down to 100pA

## Part Number

**935.132.**

**B. 2**

**S.**

**U.**

**XX**

ie. 10nF/0303 case (WBSC type) → 935.142.620.510

↓  
**Breakdown**

**Voltage:**  
4 = 11V  
7 = 30V

↓  
**Size:**

0 = 0303 5 = 0302  
1 = 0202 6 = 0503  
2 = 0101 7 = 0402  
3 = 0404 8 = 0201  
4 = 0504

↓  
**Unit:**

0 = 10f 5 = 1n  
1 = 0.1p 6 = 10n  
2 = 1p 7 = 0.1u  
3 = 10p 8 = 1u  
4 = 0.1n 9 = 10u

↓  
**Value**

Parameters	Value
Capacitance Range	10pF to 22nF
Capacitance Tolerances	$\pm 15\%$
Operating Temperature Range	-55°C to 150°C
Storage Temperatures	-70°C to 165°C
Temperature Coefficient	$< \pm 1\%$ , from -55°C to +150°C
Breakdown Voltage (BV)	150, 50, 30
Capacitance Variation Vs. RVDC	0.1% /V (from 0V to RVDC)
Equivalent Serial Inductor (ESL)	Max 100pH
Equivalent Serial Resistor (ESR)	Max 100mΩ
Insulation Resistance	100GΩ 16V from -55 to 150°C
Ageing	Negligible, $< 0.001\%$ / 1000h
Reliability	FIT $< 0.017$ parts / billion hours, RVDC, from -55 to 150°C
Capacitor Height	Max 250μm