

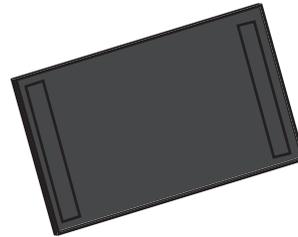
# High Temperature Silicon Capacitor

**HTSC0402 100pF**  
**935.132.424.310**

The IPDiA Technology offers industry leading performances relative to failure rate with a FIT<0.017.

This technology also offers high reliability, up to 10 times better than alternative capacitor technologies & eliminates cracking phenomena.

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



## Key Applications

- All Applications up to 200°C, such as Military, Aerospace, Automotive Industry
- High Stability Applications
- Decoupling / Filtering / Charge Pump (ie. Motor Management, Temperature Sensors)
- Devices with Battery Operations
- Replacement of X7R and C0G Pump
- Downsizing

## Key Features

- High Stability up to 200°C;
  - Temperature <math>\pm 1\%</math> (-55 to +200°C)
  - Voltage <math>< 0.1\%</math> / V
  - Negligible Capacitance Loss through Ageing
- Unique High Capacitance in EIA/0201 Package Size, up to 10nF
- High Reliability (FIT <math>< 0.017</math> parts / billion hours)
- Low Leakage Current Down to 100pA
- Low ESL and Low ESR
- Suitable with Lead Free Reflow-Soldering

## Part Number

<b>935.132.</b>	<b>B. 2</b>	<b>S.</b>	<b>U.</b>	<b>XX</b>
	↓ Breakdown	↓ Size:	↓ Unit:	↓ Value
ie. 10nF/0201 case (HTSC type) → 935.132.423.510	Voltage: 4 = 11V 7 = 30V	2 = 1005 3 = 0201 4 = 0402	0 = 10f    5 = 1n 1 = 0.1p    6 = 10n 2 = 1p    7 = 0.1u 3 = 10p    8 = 1u 4 = 0.1n    9 = 10u	

Parameters	Value
Capacitance Range	1.5nF
Capacitance Tolerances	±15%
Operating Temperature Range	-55°C to 150°C
Storage Temperatures	-70°C to 165°C
Temperature Coefficient	<math>\pm 0.5\%</math>, from -55°C to +150°C
Breakdown Voltage (BV)	11VDC
Capacitance Variation Vs. RVDC	0.1% / V (from 0 V to RVDC)
Equivalent Serial Inductor (ESL)	Max 100pH
Equivalent Serial Resistor (ESR)	Max 200mΩ
Insulation Resistance	100GΩ min @ 3V, from -55°C to +150°C
Ageing	Negligible, <math>< 0.001\%</math> / 1000h
Reliability	FIT <math>< 0.017</math> parts / billion hours
Capacitor Height	Max 400μm