

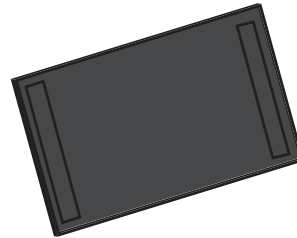
High Temperature Silicon Capacitor

HTSC0402 1nF
935.132.424.410

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 $\pm 1\%$ (-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

935.132. **B. 2** **S.** **U.** **XX**

ie. 10nF/0201 case (HTSC type) → 935.132.423.510

Breakdown	Size:	Unit:	Value
Voltage:	2 = 1005	0 = 10f	5 = 1n
4 = 11V	3 = 0201	1 = 0.1p	6 = 10n
7 = 30V	4 = 0402	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	$\pm 0.5\%$, 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