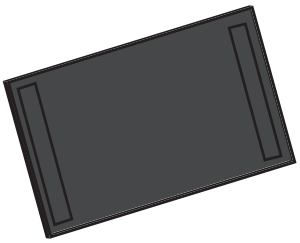
High Stability & Reliability Capacitor

HSSC0402 100pF
935.131.424.310

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 Demanding Applications such as Military, Aerospace, Automotive Industry
- High Stability Applications
- Decoupling / Filtering / Charge Pump (ie. Pacemakers / Defibrillators)
- Devices with Battery Operations
- Replacement of X7R and NP0
- Downsizing

Key Features

- High Stability up to 200°C;
  - Temperature <±0.5% (-55 to +150°C)
  - Voltage < 0.1 % / V
  - Negligible Ageing < 0.001% / 1000hours
- Unique High Capacitance in EIA/1005 Package Size, up to 1.5nF
- High Reliability (FIT < 0.017 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. 1.5nF/0201 case (HSSC type) → 935.131.422.415

Breakdown Voltage:
4 = 11V
7 = 30V

Size:
2 = 1005
3 = 0201
4 = 0402

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

Value

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	<±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, < 0.001% / 1000h
Reliability	FIT < 0.017 parts / billion hours
Capacitor Height	Max 400µm

2 & 4 Hellesdon Park Road, Norwich, Norfolk, NR6 5DR +44 (0)1603 788967 www.micross.com
chipcomponents@micross.com