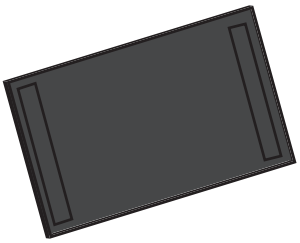
High Temperature Silicon Capacitor

HTSC0603 100nF
935.132.425.610



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 <±1% (-55 to +200°C)
  - Voltage < 0.1 % / V
  - Negligible Capacitance Loss through Ageing
- Unique High Capacitance in EIA/0201 Package Size, up to 10nF
- 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. 10nF/0201 case (HTSC type) → 935.132.423.510

B. 2 — Breakdown Voltage:
4 = 11V
7 = 30V

S. — Size:
2 = 1005
3 = 0201
4 = 0402

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

xx — 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

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