

Embedded & Wirebond Silicon Capacitor

The IPDiA Technology features high reliability, up to 10 times better than alternative capacitor technologies & eliminates cracking phenomena.

Silicon Capacitor Technology also offers a very stable capacitor value over the full operating voltage & temperature range, with a high and stable insulation resistance.

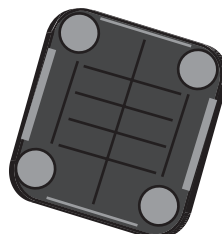
This silicon based technology is RoHS compliant and compatible with lead free reflow soldering process.

Key Applications

- Any Demanding Applications, such as Medical, Aerospace, Automotive Industrial.
- Devices with Battery Operations
- High Reliability Applications
- Supply Decoupling / Filtering of Active Device
- High Temperature Applications
- Volume Limited Applications

EMSC0202 10nF (30V)

935.121.72C.510



Key Features

- Ultra Low Profile (100µm)
- Ultra High Stability of Capacitance Value;
 - Temperature $< \pm 0.5\%$ (-55 to +150°C)
 - Voltage $< 0.1\%$ / V
 - Negligible Capacitance Loss through Ageing
- High Reliability
- Low Leakage Current down to 100pA
- High Operating Temperature (up to 150°C)

Part Number

935.132.

B. 2

S.

U.

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ie. 100nF/0404 case (EMSC type) → 935.121.42F.610

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Breakdown

Voltage:

1 = 20V

4 = 11V

6 = 50V

7 = 30V

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Size:

F = 0303 G = 0302

H = 0202 C = 0503

I = 0101 V = 0402

S = 0404 Y = 0201

V = 0504 X = 2016

↓
Unit:

0 = 10f

1 = 0.1p

2 = 1p

3 = 10p

4 = 0.1n

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Value

5 = 1n

6 = 10n

7 = 0.1µ

8 = 1µ

9 = 10µ

Parameters	Value
Capacitance Range	390pF to 4.7µF
Capacitance Tolerances	±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)	30V, 11V
Capacitance Variation Vs. RVDC	0.1% / V (from 0V to RVDC)
Equivalent Serial Inductor (ESL)	Max 100pH
Equivalent Serial Resistor (ESR)	Max 0.1Ω
Insulation Resistance	100GΩ min @ 3V, 25°C
Ageing	Negligible, $< 0.001\%$ / 1000h
Reliability	FIT < 0.017 parts / billion hours
Capacitor Height	Max 100µm