

Buried Single Layer™ Capacitors Additional Information

Environmental Parameters

Per MIL-PRF-49464 (when specified)

	<u>MIL-STD-202</u>	<u>Conditions</u>
Immersion	104	B
Resistance to Solder Heat	210	C
Thermal Shock	107	A
100 Hour Voltage Conditioning	108	A
2000 Hour Life Test	108	F
Low Voltage Humidity	103	A

Mechanical Parameters

Bond Strength	MIL-STD-883, Method 2011, Condition D
Shear Strength	MIL-STD-883, Method 2019
Metallization Thickness	Minimum 100 microinches (2.5 µm)

100% Visual Screening as per MIL-STD-883 Method 2032

When inspected under 7X - 30X magnification, capacitors will be uniform in quality and free from pits, cracks, adhered foreign material and other defects which will affect life or serviceability. There will be no demetallization (lift-off, blisters or roll back), voids or scratches on the electrodes which expose the dielectric over more than 5% of the area.

Capacitance and Dissipation Factor Measurements

Applicable to measurements under 20,000 pF.

(1) **Equipment:**

LCR Meters HP4278A
In-house designed test fixtures

(2) **Procedures:**

BX: 1 KHz, 1 Volt AC RMS, 25°C
NPQ, NPO: 1 MHz, 1 Volt AC RMS, 25°C

(3) **Frequency (beyond 1 MHz):**

High Frequency measurements up to 50 GHz conducted by Modelithics, Inc.



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Capacitance Value Decade Tables						
± 5% Tolerance				± 10% Tolerance		± 20% Tolerance
E24 Decade				E12 Decade		E8 Decade
10	18	33	50	10	33	10
11	20	36	62	12	39	15
12	22	39	68	15	47	22
13	24	43	75	18	58	33
15	27	47	82	22	68	47
18	30	51	91	27	82	68

Recommended Values
for New Design