Electrical Parameters/Characteristics

Item	Parameters/Characteristics
Operating Temperature Range	-55°C to +125°C
Capacitance Change with Reference to +25°C and 0 VDC Applied (TCC)	0 ±30 ppm/°C (0 ±60 ppm/°C for 0201 case size product ≥ 22 pF)
Aging Rate (Maximum % Capacitance Loss/Decade Hour)	0%
Dielectric Withstanding Voltage (DWV)	See Dielectric Withstanding Voltage Table (5 ±1 seconds and charge/discharge not exceeding 50 mA)
Quality Factor (Q)	≥1,000 for capacitance values ≥30 pF ≥400 +20C for capacitance values < 30 pF
Insulation Resistance (IR) Limit @ 25°C	10GΩ minimum (rated voltage applied for 120 ±5 seconds)

Capacitance and Quality Factor (Q) measured at 25ºC and 30 – 70% relative humidity under the following conditions:

1 MHz ±100 kHz and 1.0 ±0.2 Vrms if capacitance ≤ 1,000 pF

1 kHz ±100 Hz and 1.0 ±0.2 Vrms if capacitance > 1,000 pF

Note: When measuring capacitance it is important to ensure the set voltage level is held constant. The HP4284 & Agilent E4980 have a feature known as Automatic Level Control (ALC). The ALC feature should be switched to "ON."

Dielectric Withstanding Voltage Table

Rated Voltage (VDC)	≤100 V	250 V	500 V
DWV	250%	200%	150%

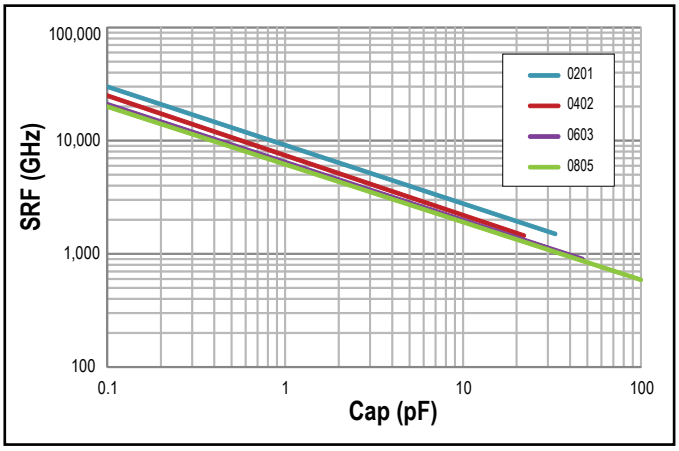
Environmental Compliance

Pb-Free and RoHS Compliant.

RoHS Compliant

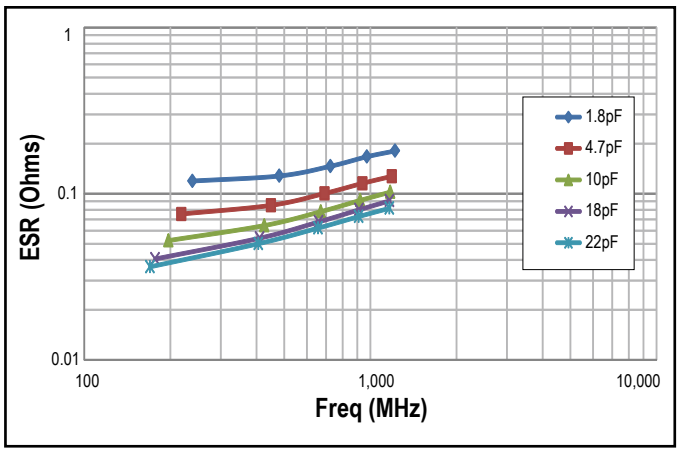
Electrical Characteristics

SRF (GHz) vs. Cap (pF)

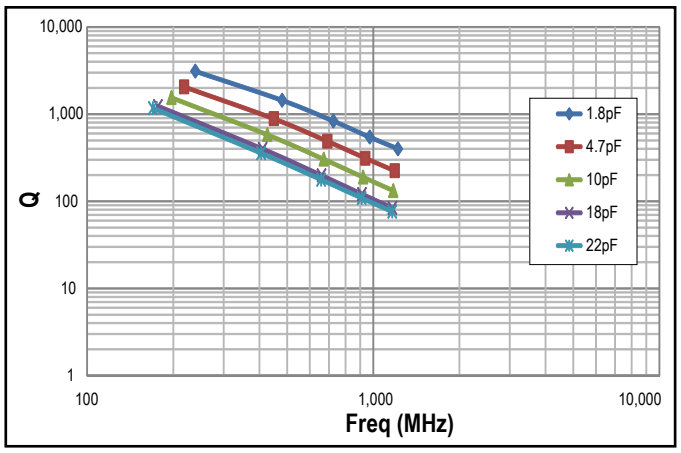


Electrical Characteristics cont'd

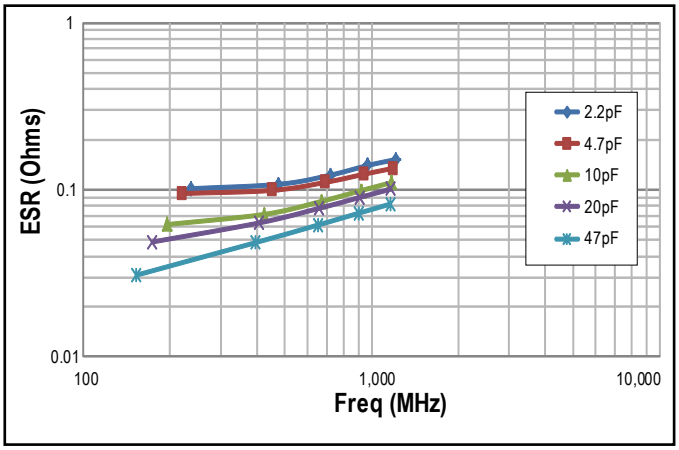
ESR vs. Frequency 0402



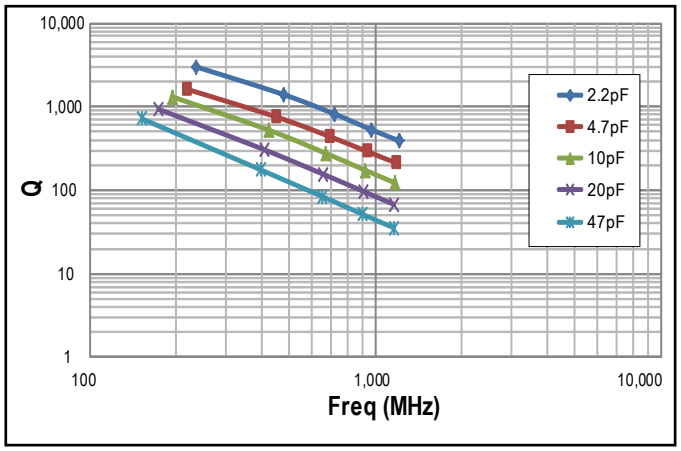
Q vs. Frequency 0402



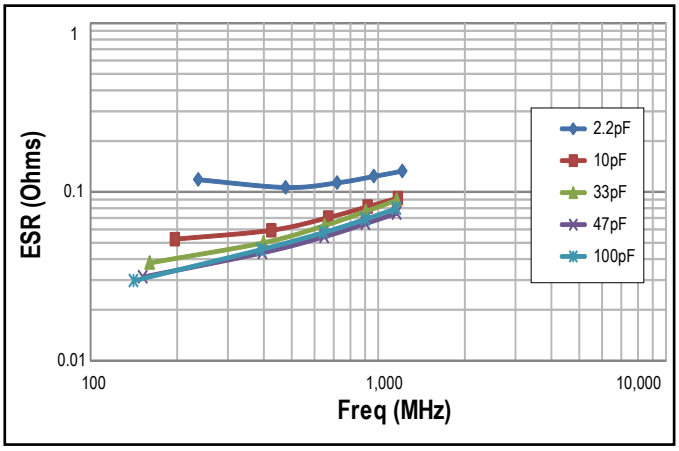
ESR vs. Frequency 0603



Q vs. Frequency 0603



ESR vs. Frequency 0805



Q vs. Frequency 0805