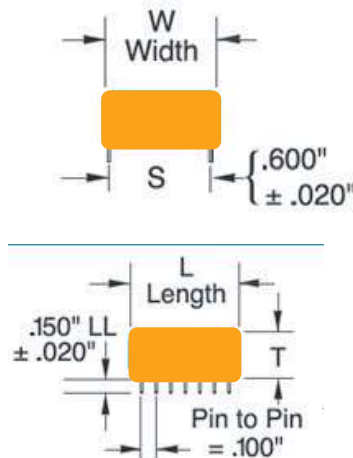


Capstick® Capacitor
Metallized Polymer Dielectric

CC

Stacked Metallized polymer capacitor
With -55 to +150C operating temperature range



- Highest ripple current x capacitance density ratings in the industry
- Novel Dielectric Material: Ultra low D.F, high operating temperature, self-healing properties
- Ultra low ESR/ESL
- Lightweight <25% of equivalent MLCC
- Low losses at high frequency
- Excellent for resonant circuits
- High dv/dt
- Efficient size
- Rugged construction
- Made in U.S.A

200 VDC / 140 VAC

PF Code	Value μF	W Max	T Max	L Maz	S	Typical ESR 500kHz m Ω	Max Ripple current 85C 500kHz [ARMS]	SRF(MHz)	Part Number
844	0.84	0.700 (17.8)	0.320 (8.1)	0.460 (11.7)	0.6	23	6.5	1.75	844K200CC6 __
185	1.8	0.700 (17.8)	0.320 (8.1)	0.880 (22.4)	0.6	13	12.6	1.4	185K200CC6 __

400 VDC / 280 VAC

424	0.42	0.700 (17.8)	0.320 (8.1)	0.460 (11.7)	0.6	23	6.5	3.6	424K400CC6 __
894	0.89	0.700 (17.8)	0.320 (8.1)	0.880 (22.4)	0.6	22	9.6	1.75	894K400CC6 __

Dimensions in inches, metric (mm) in parenthesis

Tolerance: K ($\pm 10\%$) standard, J ($\pm 5\%$) available

RoHS part number information

No suffix indicates RoHS-5 compliant standard part number. RoHS-5 product does not contain five of the RoHS banned materials (Hg, CrVI, Cd, PBB and PBDE) in levels exceeding the industry defined limits. Component lead wires are plated with Sn / Pb and match conventional SnPb 1 assembly requirements

For a RoHS-6 compliant part, add a -FA suffix. RoHS-6 product does not contain any of the six RoHS banned materials (Hg, CrVI, Cd, PBB, PBDE and Pb) in levels exceeding

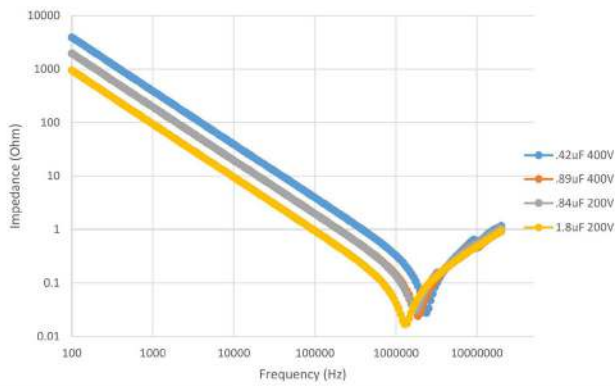
Electrical	Performance	Physical
<p>Capacitance Range: 0.42 μF to 1.8 μF @ 1KHz</p> <p>Tolerance: Available in $\pm 5\%$, 10% (standard), 20%</p> <p>Voltage Range: 200, 400, VDC</p> <p>Dissipation Factor: $\leq 0.1\%$ @ 25°C, 1KHz</p> <p>Insulation Resistance: 100ΩF or 10GΩ, whichever is less at Rated voltage and 25C</p> <p>Dielectric Strength: 1.3 x RVDC, 2 seconds max.</p> <p>Self Inductance: 2 to 6nh typical</p> <p>Temperature Range: -55°C to 150°C operating -55°C to 105°C @ rated DC voltage derate voltage 1.66% / °C above 105°C max operating temperature; 150C</p>	<p>Accelerated DC Voltage Life Test: 1,000 Hours, 85°C, 1.25 x Rated VDC $\Delta C/C \leq 5\%$ DF $\leq 1.0\%$, 1KHz, 25°C IR $\geq 1,000$ Megohm x μF Need not exceed 1,000 Megohms</p> <p>Moisture Test: 85°C / 85% RH / 21 days Applied Voltage: zero bias $\Delta C/C \leq 7\%$ DF $\leq 0.1\%$, 1KHz, 25°C IR $\geq 30\%$ of initial limit</p> <p>Long Term Stability: After 2 years storage, standard environment $\Delta C/C \leq 2\%$</p>	<p>Vibration: Mil Std 202 Method 204D</p> <p>Solder Resistance: Thru-hole wave: 260°C, 5 Sec. $\Delta C/C \leq 2\%$ SMD reflow: 220°C, 30 Sec. $\Delta C/C 2\%$</p> <p>Construction: Non-inductively constructed with metallized polymer dielectric. Parallel plate-multilayer polymer (MLP) design.</p> <p>Electrode: Aluminum metallization</p> <p>Case: UL94V-0 rated epoxy coating</p> <p>Lead Frame Material: Tinned Cu Alloy Lead Frame</p> <p>Lead Spacing: .600" (15.0mm) nominal</p> <p>Marking: ⊕P⊕ type capacitance code, tolerance code, Anti-static tube. SMD units dry packed with desiccant</p>

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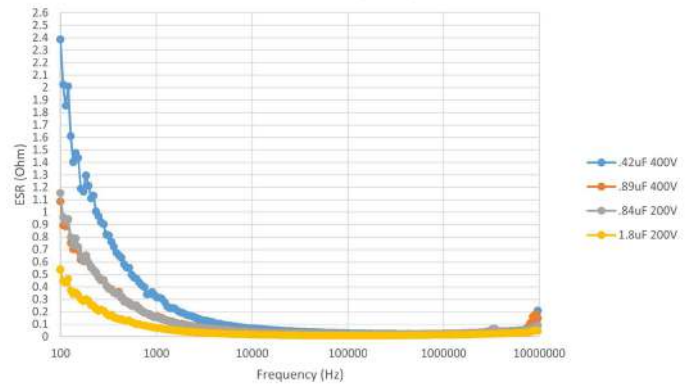
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Electrical Characteristics

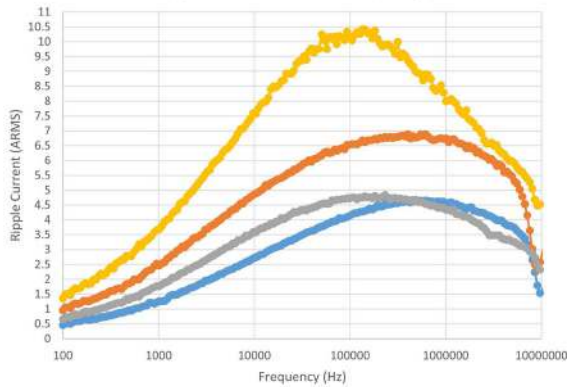
Impedance Vs Frequency



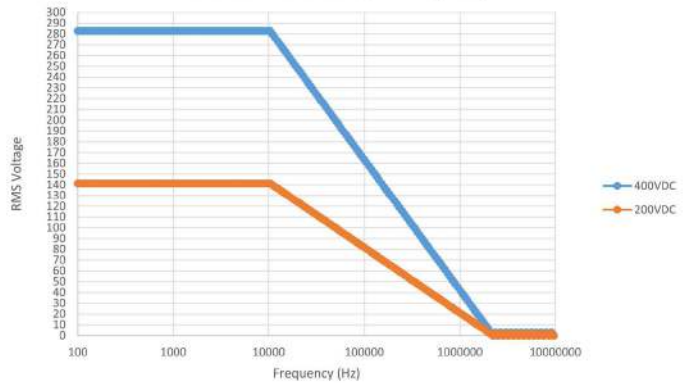
ESR Vs Frequency



Ripple Current limit Vs Frequency -55 to +85C



Maximum RMS Voltage vs frequency

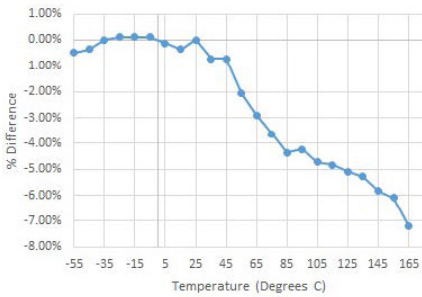


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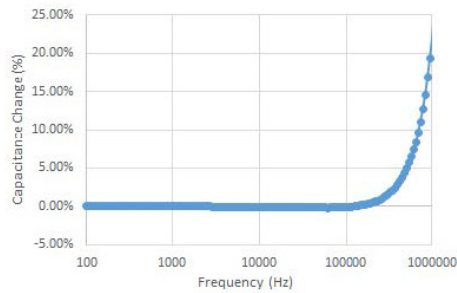
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Electrical Characteristics 200V and 400V Ratings

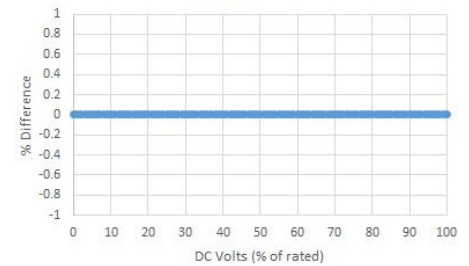
Capacitance Change (%) Vs. Temperature



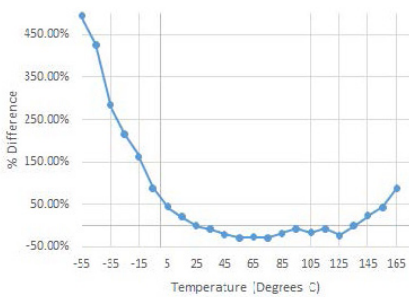
Capacitance (%) Vs. Frequency



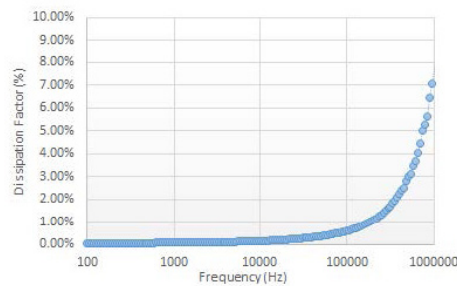
Capacitance Change (%) Vs. DC Bias Voltage



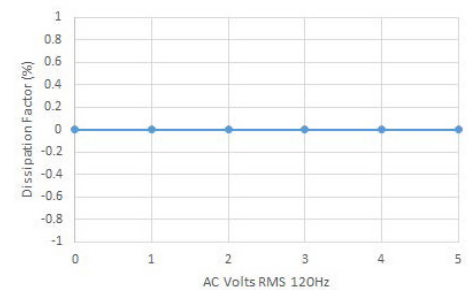
ESR Change (%) Vs. Temperature



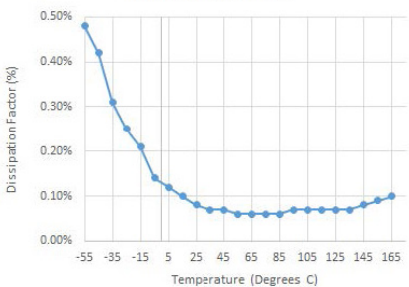
D.F Vs. Frequency



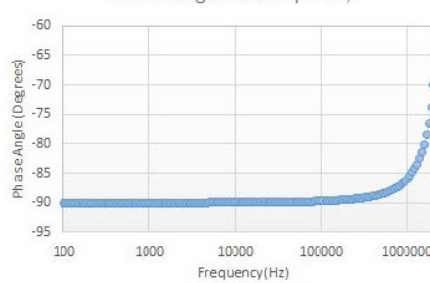
D.F. (%) Vs. AC Volts



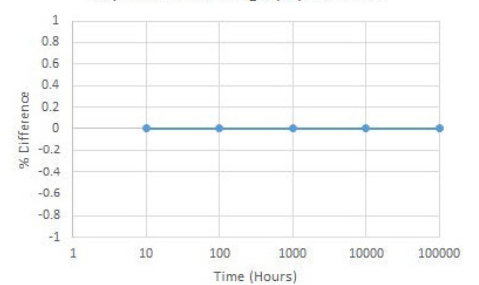
D.F. Vs. Temperature



Phase Angle vs. Frequency



Capacitance Change (%) Vs. Time



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