

# Pulse Energy Capacitor

Quantic™ UTC's pulse energy capacitors are manufactured using dielectric formulations with negative temperature coefficients. The energy density of this dielectric material is greater than that of conventional dielectric materials and it provides excellent pulse delivery over short durations at temperatures up to 200 °C. MIL-PRF-49467 testing is available.

## Features

- Available in High temperature up to 200 °C
- Up to 10KV range for single and multi-pulse firing applications
- Bleed resistor for added safety
- Custom sizes, capacitance, and voltage ranges are available

## Applications

- Downhole
- Missile System
- Detonation



## How to Order (Stacked)

DP	1	F	6560	L	1	C	304	K	P	X	-R500
Series	No. Chip(s)	Voltage	Case Size	Lead Frame	Coating	Dielectric	Capacitance [pF]	Tolerance	Termination	Testing	Special
Pulse Energy (200 °C)	1	T = 1200 VDC	2225	L	1 = uncoated	C (N2200)	304	J = ±5%	P = PdAg	A = Standard	R500 (500 MegaOhm)
	2	F = 1600 VDC	3640	J	2 = coated		Two Significant digits followed by No. of zeros. eg.: 304 = 300,000 pF	K = ±10%	S = Ag	B = Group A	
	3	V = 1800 VDC	4040					M = ±20%		X = Special	
		W = 2000 VDC	5550					Z = ±80%, -20%			
	X = 3000 VDC	6560				P = ±100%, -0%					

## How to Order (Chip)

DP	F	6560	1	C	304	K	P	X	-R500	
Series	Voltage	Case Size	Coating	Dielectric	Capacitance [pF]	Tolerance	Termination	Testing	Special	
Pulse Energy (200 °C)	T = 1200 VDC	2225	1 = uncoated	C (N2200)	304	J = ±5%	P = PdAg	A = Standard	R500 (500 MegaOhm)	
	F = 1600 VDC	3640	2 = coated		Two Significant digits followed by No. of zeros. eg.: 304 = 300,000 pF	K = ±10%	S = Ag	B = Group A		
	V = 1800 VDC	4040					M = ±20%			X = Special
	W = 2000 VDC	5550					Z = ±80%, -20%			
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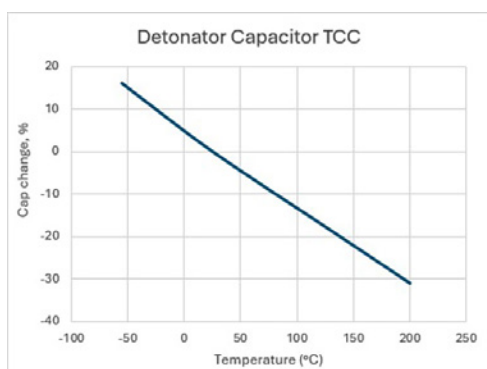
## Dielectric Characteristics

Operating Temperature range:	-55 °C to 200 °C
Temperature coefficient:	-55 °C to 200 °C is 2200 ppm/°C ± 300 ppm/°C
Dissipation factor@ 25 °C	0.1% Max
Insulation resistance @ 25 °C:	>100GΩ or >10000F whichever is less
Insulation resistance @ 200 °C:	>1GΩ or >10ΩF whichever is less
Dielectric withstanding voltage:	120%
Ageing rate:	0% per decade
Test Parameters:	1KHz, 1.0 ±0.2 VRMS, 25 °C

## Product Range (per size)

Chip Size	2225	3640	4040	5550	6560
Length, inch	0.220 ±0.015	0.360 ±0.018	0.400 ±0.020	0.550 ±0.028	0.650 ±0.033
Width, inch	0.250 ±0.015	0.400 ±0.020	0.400 ±0.020	0.500 ±0.025	0.600 ±0.030
T max, inch	0.125	0.180	0.250	0.250	0.250
End Band, inch	0.030 ±0.015	0.030 ±0.015	0.040 ±0.020	0.040 ±0.020	0.040 ±0.020
Rated V	Max Cap Code				
1000	623	254	334	524	824
1500	303	154	214	334	474
2000	223	104	134	254	404
3000	682	273	393	563	104

## Dielectric Characteristics



Quantic™ UTC is a global capacitor provider manufacturing multilayer ceramic capacitors (MLCCs) and leaded devices for use in defense, aerospace, computer, telecommunications, industrial and various high reliability applications. Our offerings include surface mount (SMT) multi-layer ceramic chip capacitors in both custom and EIA standard sizes; switch mode power supply (SMPS) capacitors in accordance with MIL-PRF-49470 and DSCC/DLA 87106, 88011 drawings and customer source controlled drawings (SCDs); SMT high voltage MLCC; radial leaded high voltage capacitors; SMD large body size MLCC; discoidal capacitors; discoidal arrays; and custom molded case radial parts.

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