

KEMET®

**SOLID
TANTALUM
& MULTILAYER
CERAMIC
CAPACITORS**



KEMET on the INTERNET
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E-Mail: capmaster@kemet.com

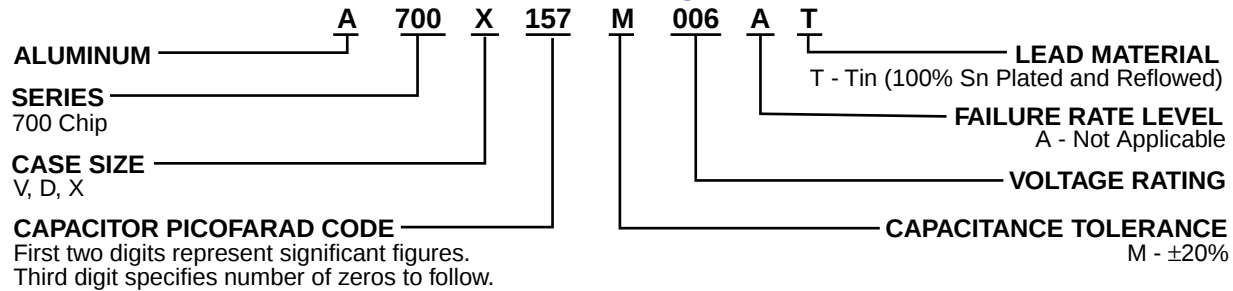
PRODUCT SELECTION GUIDE

KEMET manufactures a full line of solid tantalum and multilayer ceramic capacitors in both surface-mount and leaded configurations. KEMET also offers aluminum organic surface mount products—the A700 series. This selection guide is an overview of those products.

Specific Product Catalog Ordering Information

Refer to the *specific* capacitor catalog "**F**" Number at the top of each section. Mail, FAX or phone the catalog "F" number and product name, your name, company name, complete mailing address, and phone number to: Margie Ballinger • KEMET Electronics Corporation • P. O. Box 5928 • Greenville, SC 29606 USA FAX: (864)963-6444 • Phone: (864)963-6682 (Literature Requests Only) or visit the KEMET website www.kemet.com. Click on Products then Literature Requests. Your request will be processed within 48 hours.

Aluminum Part Numbering Information

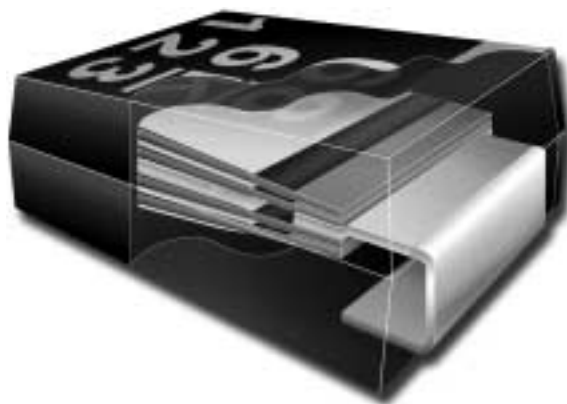


ALUMINUM ORGANIC CHIPS

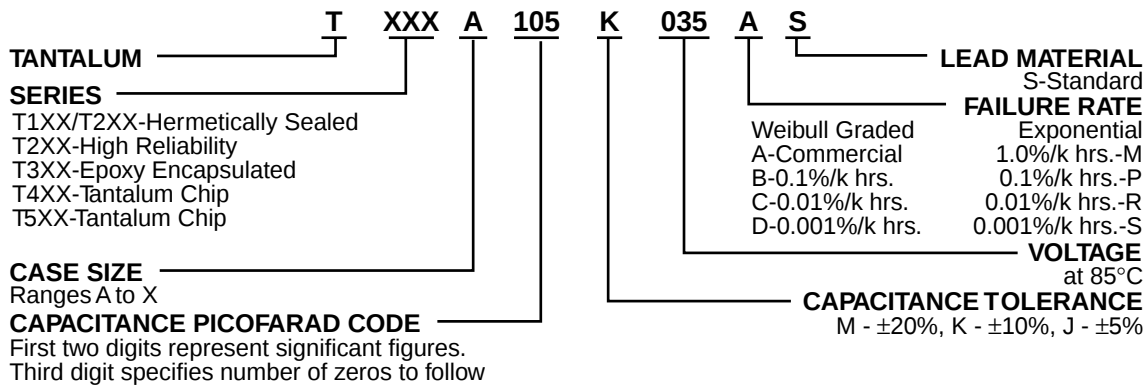
CATALOG F3235



Series	Case Size KEMET/EIA	Dimensions L x W x H (mm)	Cap Range	Characteristics
A700	V/7343-20	7.3 x 4.3 x 1.9	33.0 - 150.0 μ F	- Organic polymer for counter-electrode material - Pb Free - Extremely low ESR—28mΩ-10mΩ 2 - 10 volts $\pm 20\%$ Cap tolerance - Tape & reel packaging
	D/7343-31	7.3 x 4.3 x 2.8	100.0 - 220.0 μ F	
	X/7343-43	7.3 x 4.3 x 4.0	150.0 - 470.0 μ F	



Tantalum Part Number Information

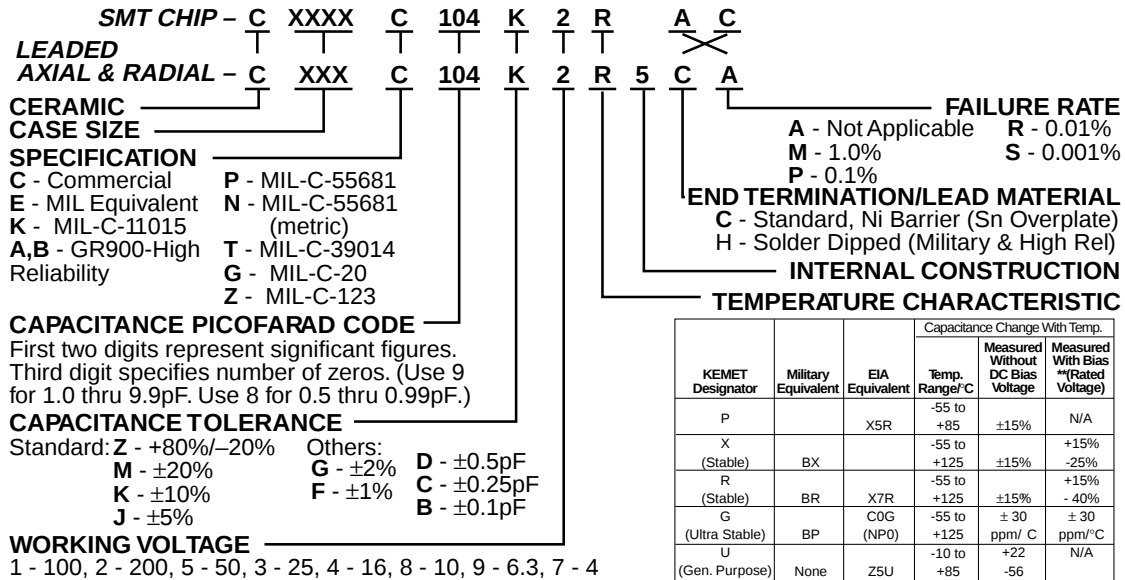


TANTALUM CHIPS

CATALOG F3102

	Series	Case Size KEMET/EIA	Dimensions L x W x H (mm)	Cap Range	Characteristics
	T491	A/3216-18	3.2 x 1.6 x 1.6	.10 - 47.0µF	- Industrial/commercial grade 3 - 50 Volts ±20%; ±10% Cap tolerance - Tape & reel packaging
		B/3528-21	3.5 x 2.8 x 1.9	.15 - 100.0µF	
		C/6032-28	6.0 x 3.2 x 2.5	.47 - 150.0µF	
		D/7343-31	7.3 x 4.3 x 2.8	1.5 - 470.0µF	
		X/7343-43	7.3 x 4.3 x 4.0	6.8 - 680.0µF	
	T491	E/7260-38	7.3 x 6.0 x 3.6	1000.0µF	- Low profile T491 product 4 - 20 Volts ±20%; ±10% Cap tolerance - Tape & reel packaging
		R/2012-12	2.0 x 1.3 x 1.2	2.2 - 10.0µF	
		S/3216-12	3.2 x 1.6 x 1.2	1.0 - 15.0µF	
		T/3528-12	3.5 x 2.8 x 1.2	3.3 - 33.0µF	
		U/6032-15	6.0 x 3.2 x 1.5	6.8 - 100.0µF	
	T492	V/7343-20	7.3 x 4.3 x 2.0	22.0 - 330.0µF	- Mil-PRF-55365/8 (CWR11) approve 6 - 35 Volts ±20%; ±10% Cap tolerance - Tape & reel packaging
		A/3216-18	3.2 x 1.6 x 1.6	.10 - 3.3µF	
		B/3528-21	3.5 x 2.8 x 1.9	.47 - 10.0µF	
		C/6032-28	6.0 x 3.2 x 2.5	1.5 - 22.0µF	
		D/7343-31	7.3 x 4.3 x 2.8	4.7 - 47.0µF	
	T494	E/7260-38	7.3 x 6.0 x 3.6	1000.0µF	- Low ESR/Industrial grade 3 - 50 Volts ±20%; ±10% Cap tolerance - Tape & reel packaging
		R/2012-12	2.0 x 1.3 x 1.2	2.2 - 10.0µF	
		S/3216-12	3.2 x 1.6 x 1.2	1.0 - 15.0µF	
		T/3528-12	3.5 x 2.8 x 1.2	3.3 - 33.0µF	
		U/6032-15	6.0 x 3.2 x 1.5	6.8 - 100.0µF	
	T494	V/7343-20	7.3 x 4.3 x 2.0	22.0 - 330.0µF	- Low profile/Low ESR T494 Product 4 - 20 Volts ±20%; ±10% Cap tolerance - Tape & reel packaging
		C/6032-28	6.0 x 3.2 x 2.5	4.7 - 100.0µF	
		D/7343-31	7.3 x 4.3 x 2.8	10.0 - 220.0µF	
		X/7343-43	7.3 x 4.3 x 4.0	4.7 - 470.0µF	
	T495				- Low ESR, surge robust series 6 - 50 Volts ±20%; ±10% Cap tolerance - Tape & reel packaging
	T495	V/7343-20	7.3 x 4.3 x 2.0	68.0 - 100.0µF	- Low profile/Low ESR T495 Product 6 - 10 Volts ±20%; ±10% Cap tolerance - Tape & reel packaging
	T496	B/3528-21	3.5 x 2.8 x 1.9	.15 - 22.0µF	- Fail-safe fused series 4 - 50 Volts ±20%; ±10% Cap tolerance - Tape & reel packaging
		C/6032-28	6.0 x 3.2 x 2.5	.47 - 100.0µF	
		D/7343-31	7.3 x 4.3 x 2.8	2.2 - 330.0µF	
		X/7343-43	7.3 x 4.3 x 4.0	4.7 - 470.0µF	
	T510	X/7343-43	7.3 x 4.3 x 4.0	330.0 - 680.0µF	- Ultra-Low ESR (< 30 mΩ) 4 - 10 Volts ±20%; ±10% Cap tolerance - Tape & reel packaging
		E/7260-38	7.3 x 6.0 x 3.6	680.0 - 1,000µF	
	T520	V/7343-20	7.3 x 4.3 x 2.0	68.0 - 220.0µF	- KEMET organic with Polymer Cathode 4 - 10 Volts - Contact KEMET for available ratings
		D/7343-31	7.3 x 4.3 x 2.8	100.0 - 470.0µF	
		X/7343-43	7.3 x 4.3 x 4.0	330.0 - 470.0µF	
	T530	X/7343-43	7.3 x 4.3 x 4.0	470.0 - 1000.0µF	- KEMET organic with Polymer Cathode - Ultra low ESR (<18mΩ) 3 - 6 Volts

Ceramic Part Number Information



CERAMIC CHIPS

CATALOG F3102



Size Code *EIA/Metric	Dimensions L x W x T (mm)	Cap Range	Characteristics
*0402/1005	1.0 x 0.5 x 0.5	C0G - 0.5 - 100pF X7R - 150.0 - 10,000pF X5R - 12,000 - 100,000pF	- Standard EIA chip sizes * EIA Preferred case sizes
*0603/1608	1.6 x 0.8 x 0.8	C0G - 0.5 - 1,000pF X7R - 180pF - .22μF Y5V - .10 - .33μF	6.3, 10, 16, 25, 50, 100 & 200 Volts - C0G/NP0; X7R; X5R, Z5U; Y5V dielectrics
*0805/2012	2.0 x 1.25 x 1.3 MAX	C0G - 0.5 - 3,900pF X7R - 220pF - 1.0μF Z5U - 6,800pF - 0.1μF Y5V - .022μF - 2.2μF	±0.25pF; ±0.5pF; ±1%; ±2%; ±5%; ±10%; ±20%; +80%/-20% Capacitance tolerances available
*1206/3216	3.2 x 1.6 x 1.5 MAX	C0G - 1.0 - 10,000pF X7R - 1,000pF - 2.2μF X5R - 1.5 - 10.0μF Z5U - .01 - .22μF Y5V - .022 - 22.0μF	Mil-PRF-55681 approved
*1210/3225	3.2 x 2.5 x 1.7 MAX	C0G - 10pF - .012μF X7R - 2,200pF - .33μF X5R - 4.7 - 10.0μF Z5U - .047 - 1.0μF Y5V - .22 - 22.0μF	Mil-PRF-123 approved and GR900 High Reliability available. Dimensions and cap ranges will vary slightly. Refer to catalog F-3054 for specific information.
*1812/4532	4.5 x 3.2 x 1.7 MAX	C0G - 470pF - .01μF X7R - 6,800pF - 1.0μF Z5U - .082 - 1.0μF	Tape & reel packaging available
*1825/4564	4.5 x 6.4 x 1.7 MAX	C0G - 3,900pF - .027μF X7R - .022 - 2.2μF Z5U - .18 - 1.5μF	Bulk cassette packaging available
2220/5650	5.6 x 5.0 x 1.8 MAX	C0G - 6,800pF - .027μF X7R - .27 - 2.2μF	
2225/5664	5.6 x 6.3 x 2.0 MAX	C0G - 4,700pF - .033μF X7R - .047 - 2.2μF Z5U - .33 - 2.2μF	
1632 Array (4 elements)	3.2 x 1.6 x 1.35 MAX	C0G - 10 - 470pF X7R - 330pF - 0.1μF	16, 25, 50 Volts - C0G/NP0, X7R Dielectrics - Tape & reel packaging available

TANTALUM HERM SEAL • POLAR • T110/T140 SERIES CATALOG F3100



Case Size	Dimensions D x L (inches)		Cap Range	Characteristics
	Uninsulated	Insulated		
A	.125 x .250	.135 x .286	.0047 - 12.0μF	• 6 - 125 Volts • ±20%; ±10%; ±5% Cap tolerance • Tape & reel packaging available
B	.175 x .438	.185 x .474	.39 - 100.0μF	
C	.279 x .650	.289 x .686	2.7 - 470.0μF	
D	.341 x .750	.351 x .786	8.2 - 1200.0μF	

TANTALUM HERM SEAL • POLAR • T2XX SERIES CATALOG F3100



Case Size	Dimensions D x L (inches)		Cap Range	Characteristics
	Uninsulated	Insulated		
A	.125 x .250	.135 x .286	.0047 - 12.0μF	• 6 - 100 Volts • ±20%; ±10%; ±5% Cap tolerance • Tape & reel packaging available • Mil-PRF-39003/01/03/06/09/10
B	.175 x .438	.185 x .474	.39 - 100.0μF	
C	.279 x .650	.289 x .686	2.7 - 470.0μF	
D	.341 x .750	.351 x .786	8.2 - 1000.0μF	

TANTALUM HERM SEAL • MINIATURE • T222 SERIES CATALOG F3100



Case Size	Dimensions D x L (inches)		Cap Range	Characteristics
	Uninsulated	Insulated		
A	.085 x .245	.090 x .250	.047 - 2.7μF	• 6 - 75 Volts • ±20%; ±10%; ±5% Cap tolerance • Mil-PRF-39003/02 approved
B	.127 x .375	.138 x .390	.22 - 18.0μF	

TANTALUM MOLDED • AXIAL • T32X SERIES CATALOG F3100



Case Size	Dimensions D x L x W (inches)	Cap Range	Characteristics
A	.095 x .260 x .020	.10 - 10.0μF	• 2 - 50 Volts • ±20%; ±10%; ±5% Cap tolerance • Tape & reel packaging available • Mil-PRF-49137/1 & 5 (CX01 & CX05) approved • Miniature - polar type
B	.110 x .290 x .020	.33 - 33.0μF	
C	.180 x .345 x .020	1.2 - 68.0μF	
D	.180 x .420 x .020	2.7 - 68.0μF	
E	.280 x .530 x .025	5.6 - 220.0μF	
F	.300 x .710 x .025	12.0 - 330.0μF	

TANTALUM MOLDED • RADIAL • T330 SERIES CATALOG F3100



Case Size	Dimensions D x L x W (inches)	Cap Range	Characteristics
A	.345 x .230 x .105	.10 - 22.0μF	• 6 - 50 Volts • ±20%; ±10%; ±5% Cap tolerance • Tape & reel packaging available • A - C case size only
B	.225 x .285 x .170	.10 - 22.0μF	
C	.325 x .325 x .170	2.7 - 68.0μF	
D	.375 x .600 x .195	6.8 - 220.0μF	

TANTALUM MOLDED • RADIAL • T340 SERIES CATALOG F3100



Case Size	Dimensions D x L x W (inches)	Cap Range	Characteristics
A	.287 x .185 x .165	.10 - 15.0μF	• 3 - 50 Volts • ±20%; ±10%; ±5% Cap tolerance • Tape & reel packaging available • A - D case size only
B	.327 x .283 x .157	.39 - 47.0μF	
C	.413 x .287 x .169	2.7 - 100.0μF	
D	.413 x .484 x .287	6.8 - 220.0μF	
E	.413 x .484 x .484	22.0 - 330.0μF	
F	.413 x .484 x .287	6.8 - 220.0μF	

TANTALUM HIGH RELIABILITY • GR500 SERIES CATALOG F2956

For GR500 High Reliability specific information, refer to catalog F-2956.

TANTALUM MOLDED • RADIAL • T37X SERIES CATALOG F3100



Case Size	Dimensions H x W x T (inches)	Cap Range	Characteristics
C	.225 x .185 x .075	.68 - 15.0μF	• 3 - 35 Volts • ±20%; ±10%; ±5% Cap tolerance • Tape & reel packaging available • D - E case size only • Mil-PRF-49137/6 (CX06) approved
D	.290 x .220 x .110	2.2 - 47.0μF	
E	.310 x .230 x .130	6.8 - 68.0μF	
F	.475 x .375 x .150	10.0 - 220.0μF	

TANTALUM DIPPED RADIAL • T35X SERIES CATALOG F3100



Case Size	Dimensions D x H (inches)	Cap Range	Characteristics
A	.175 x .280 - .400	.10 - 10.0μF	• 3 - 50 Volts • ±20%; ±10%; ±5% Cap tolerance • Tape & reel packaging available • 6 Lead configurations available • .10; .20; .25; and .125 Lead spacing available Note: "H" dimension is the range for all T35X Series. For specific "H" dimensions, refer to catalog F-3100.
B	.175 x .300 - .410	.39 - 15.0μF	
C	.196 x .330 - .440	1.8 - 22.0μF	
D	.196 x .340 - .450	1.2 - 33.0μF	
E	.216 x .350 - .460	1.5 - 47.0μF	
F	.236 x .390 - .500	2.7 - 68.0μF	
G	.250 x .400 - .510	3.9 - 100.0μF	
H	.300 x .400 - .520	5.6 - 150.0μF	
J	.330 x .500 - .580	6.8 - 220.0μF	
K	.350 x .530 - .630	10.0 - 330.0μF	
L	.350 x .630 - .730	15.0 - 470.0μF	
M	.400 x .670 - .760	22.0 - 680.0μF	

TANTALUM DIPPED RADIAL • T368 SERIES CATALOG F3100



Case Size	Dimensions T x W x H (inches)	Cap Range	Characteristics
C	.250 x .400 x .420	5.6 - 150.0μF	• 6 - 50 Volts • ±20%; ±10%; ±5% Cap tolerance • Tape & reel packaging available
D	.250 x .460 x .520	18.0 - 330.0μF	

TANTALUM DIPPED RADIAL • T363/T369 SERIES CATALOG F3100



Case Size	Dimensions D x H (inches)	Cap Range	Characteristics
A	.175 x .350	.10 - 6.8μF	• 6 - 50 Volts • ±20%; ±10%; ±5% Cap tolerance • Tape & reel packaging available • Mil-PRF-49137 (CX02/CX12) approved (CX12 available A & B case only)
B	.250 x .450	1.5 - 68.0μF	
C	.350 x .610	6.8 - 150.0μF	
D	.400 x .740	22.0 - 330.0μF	

TANTALUM DIPPED RADIAL • T396/T398 SERIES CATALOG F3100



Case Size	Dimensions W x T x H (inches)	Cap Range	Characteristics
A	.280 x .190 x .310/.355	.10 - 10.0μF	• 3 - 50 Volts • ±20%; ±10% Cap tolerance • Tape & reel packaging available • 3 Lead design, fail-safe insertion Note: "H" dimension is for both T396/T398 series
B	.280 x .190 x .320/.365	.47 - 15.0μF	
C	.280 x .200 x .360/.390	2.2 - 22.0μF	
D	.280 x .200 x .370/.390	3.3 - 33.0μF	
E	.280 x .230 x .380/.415	1.5 - 47.0μF	
F	.280 x .240 x .410/.430	3.3 - 68.0μF	
G	.280 x .250 x .420/.440	4.7 - 100.0μF	
H	.280 x .270 x .420/.440	22.0 - 150.0μF	
J	.300 x .300 x .460/.480	6.8 - 220.0μF	
K	.340 x .340 x .500/.500	10.0 - 330.0μF	
L	.340 x .340 x .560/.580	15.0 - 470.0μF	
M	.360 x .360 x .620/.620	22.0 - 680.0μF	

CERAMIC DIPPED • RADIAL

CATALOG F3101



Size Code	Dimensions L x H x T (inches)	Cap Range	Characteristics
C315	.150 x .210 x .100	1.0pF - .10μF	• 50, 100 & 200 Volts • C0G/NP0; X7R & Z5U dielectrics • ±0.5pF; ±1%; ±2%; ±5%; ±10%; ±20% & -20%/+80% Capacitance tolerances available • Several lead configurations available • Various lead spacings • Tape & reel packaging available (except no reeling C350 size)
C317	.150 x .230 x .100	1.0pF - .10μF	
C320	.200 x .260 x .125	1.0pF - .56μF	
C322	.200 x .260 x .125	1.0pF - .56μF	
C323	.200 x .320 x .125	1.0pF - .56μF	
C330	.300 x .360 x .150	2700pF - 2.2μF	
C333	.300 x .390 x .150	2700pF - 2.2μF	
C340	.400 x .460 x .150	.018μF - 4.7μF	
C350	.500 x .560 x .200	.039μF - 6.8μF	

CERAMIC CONFORMALLY COATED • AXIAL

CATALOG F3101



Size Code	Dimensions L x D (inches)	Cap Range	Characteristics
C410	.170 x .100	10pF - .22μF	• 50 & 100 Volts • C0G/NP0; X7R & Z5U dielectrics • ±5%; ±10%; ±20%; & -20%/+80% Capacitance tolerances available • Tape & reel packaging available
C412	.170 x .120	1200pF - .33μF	
C420	.260 x .100	1200pF - .33μF	
C430	.290 x .150	2700pF - .68μF	
C440	.400 x .150	.01μF - 1.0μF	

CERAMIC MOLDED • RADIAL

CATALOG F3101



Size Code	Dimensions H x L x W (inches)	Cap Range	Characteristics
C052/56	.190 x .190 x .090	1.0pF - .10μF	• 50, 100 & 200 Volts • C0G/NP0 & X7R dielectrics • ±0.1pF; ±0.25pF; ±0.5pF; ±1%; ±2%; ±5%; ±10%; & ±20% Capacitance tolerances available • Tape & reel packaging available • Mil-C-11015; Mil-PRF-39014; Mil-PRF-20; & *Mil-PRF-123 approved • *GR900 High Reliability available
C062/66	.290 x .290 x .090	360pF - 1.0μF	
C512	.480 x .480 x .140	2200pF - 2.2μF	
C522	.480 x .480 x .240	3900pF - 3.3μF	

CERAMIC MOLDED • AXIAL

CATALOG F3101



Size Code	Dimensions L x D (inches)	Cap Range	Characteristics
C114	.160 x .090	1.0pF - .010μF	• 50, 100 & 200 Volts • C0G/NP0 & X7R dielectrics • ±0.1pF; ±0.25pF; ±0.5pF; ±1%; ±2%; ±5%; ±10% & ±20% Capacitance tolerances available • Tape & reel packaging available • Mil-C-11015; Mil-PRF-39014; Mil-PRF-20 approved
C124	.250 x .090	82pF - .047μF	
C192	.390 x .140	150pF - .27μF	
C202	.500 x .250	820pF - 1.0μF	
C222	.690 x .350	3900pF - 3.3μF	

CERAMIC MOLDED • HIGH RELIABILITY

CATALOG F3054

Mil-PRF-123* and GR900* specifications are included in the sections above. For detailed information for High Reliability products, refer to catalog F-3054.