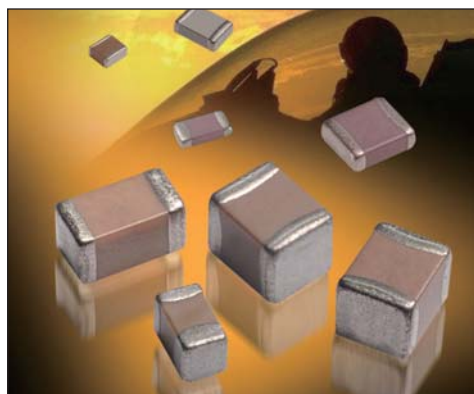




AVX Corp.'s M123 Series MIL-qualified ceramic capacitors are designed for high performance applications in BX and BR voltage levels, and for temperature stable applications in BP and BG voltage levels. The M123A10-M123A23 have been tested in accordance with MIL-PRF-123 specifications and are available in a wide range of values and tolerances.

M123 Series capacitors offer design and component engineers a proven technology for SMD processing and applications requiring space-level reliability. They are designed for use in critical frequency applications, timing circuits, and applications where absolute stability is required (BP and BG), as well as in applications where a wider capacitance variation in temperature, voltage, frequency, and life span can be tolerated (BX and BR).

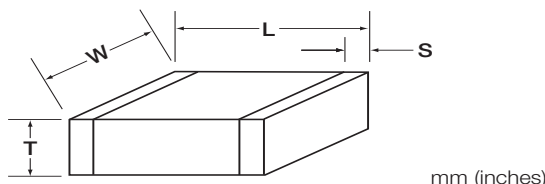
HOW TO ORDER

Military Type Designation: Capacitors, Fixed, Ceramic Dielectric, (Temperature Stable and General Purpose), High Reliability

Not RoHS Compliant

M123	A	10	BX	B	103	K	S
Mil-Spec Number	Modification Spec.	Slash Sheet Number	Temperature Characteristic	Voltage B = 50 C = 100	Capacitance Code	Capacitance Tolerance C = $\pm 0.25\text{pF}$ D = $\pm 0.5\text{pF}$ F = $\pm 1\%$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	Termination G = Silver - Nickel - Gold M = Palladium/Silver S = Silver - Nickel - Solder Coated Z = Silver - Nickel - Solder Plated (tin/lead alloy with a minimum of 4 percent lead)
			Capacitance change with reference to 25°C over temperature range -55°C to +125°C				
			Symbol	Without Voltage	With Rated DC Voltage		
			BP	0 $\pm$ 30 ppm/°C	0 $\pm$ 30 ppm/°C		
			BX	+15, -15%	+15, -25%		

DIMENSIONS



(L) Length	(W) Width	(T) Thickness	(S) Termination Band
CKS51, /10, 0805 Size Chip			
2.03 (0.080) ± 0.381 (0.015)	1.27 (0.050) ± 0.381 (0.015)	0.508 (0.020) Min. 1.40 (0.055) Max.	0.508 (0.020) ± 0.254 (0.010)
CKS52, /11, 1210 Size Chip			
3.05 (0.120) ± 0.381 (0.015)	2.54 (0.100) ± 0.381 (0.015)	0.508 (0.020) Min. 1.65 (0.065) Max.	0.508 (0.020) ± 0.254 (0.010)
CKS52, /12, 1808 Size Chip			
4.57 (0.180) ± 0.381 (0.015)	2.03 (0.080) ± 0.381 (0.015)	0.508 (0.020) Min. 1.65 (0.065) Max.	0.508 (0.020) ± 0.254 (0.010)
CKS54, /13, 2225 Size Chip			
5.59 (0.220) ± 0.381 (0.015)	6.35 (0.250) ± 0.381 (0.015)	0.508 (0.020) Min. 1.78 (0.070) Max.	0.508 (0.020) ± 0.254 (0.010)
CKS55, /21, 1206 Size Chip			
3.05 (0.120) ± 0.381 (0.015)	1.52 (0.060) ± 0.381 (0.015)	0.508 (0.020) Min. 1.65 (0.065) Max.	0.508 (0.020) ± 0.254 (0.010)
CKS56, /22, 1812 Size Chip			
4.57 (0.180) ± 0.381 (0.015)	3.18 (0.125) ± 0.381 (0.015)	0.508 (0.020) Min. 2.03 (0.080) Max.	0.508 (0.020) ± 0.254 (0.010)
CKS56, /23, 1825 Size Chip			
4.57 (0.180) ± 0.381 (0.015)	6.35 (0.250) ± 0.381 (0.015)	0.508 (0.020) Min. 2.03 (0.080) Max.	0.508 (0.020) ± 0.254 (0.010)

Slash Sheet	Case Size	Dielectric	Cap Range (pF)
10	0805	BP	1.0-680
		BX	330-470000
11	1210	BP	300-3,300
		BX	5,600-100,000
12	1808	BP	300-1,000
		BX	5,600-100,000
13	2225	BP	1,100-10,000
		BX	120,000-1,000,000
21	1206	BP	1.0-2,200
		BX	4,700-39,000
22	1812	BP	1,200-10,000
		BX	27,000-180,000
23	1825	BP	3,900-20,000
		BX	56,000-470,000



Performance of SMPS Capacitors can also be simulated by downloading the newly updated SpiCalci 6.0 software program. Custom values, ratings and configurations are also available, <http://www.avx.com/SpiApps/default.asp#spicalci>.

MIL-PRF-123/STYLE CKS51, -/10

Part Number 1/ (0805 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A10BP_1R0_	1.0	C,D	BP	50,100
M123A10BP_1R1_	1.1			
M123A10BP_1R2_	1.2			
M123A10BP_1R3_	1.3			
M123A10BP_1R5_	1.5			
M123A10BP_1R6_	1.6			
M123A10BP_1R8_	1.8			
M123A10BP_2R0_	2.0			
M123A10BP_2R2_	2.2			
M123A10BP_2R4_	2.4			
M123A10BP_2R7_	2.7	C, J, K	BP	50,100
M123A10BP_3R0_	3.0			
M123A10BP_3R3_	3.3			
M123A10BP_3R6_	3.6			
M123A10BP_3R9_	3.9			
M123A10BP_4R3_	4.3			
M123A10BP_4R7_	4.7			
M123A10BP_5R1_	5.1			
M123A10BP_5R6_	5.6			
M123A10BP_6R2_	6.2			
M123A10BP_6R8_	6.8	F, J, K	BP	50,100
M123A10BP_7R5_	7.5			
M123A10BP_8R2_	8.2			
M123A10BP_9R1_	9.1			
M123A10BP_100_	10			
M123A10BP_110_	11			
M123A10BP_120_	12			
M123A10BP_130_	13			
M123A10BP_150_	15			
M123A10BP_160_	16			
M123A10BP_180_	18	F, J, K	BP	50,100
M123A10BP_200_	20			
M123A10BP_220_	22			
M123A10BP_240_	24			
M123A10BP_270_	27			
M123A10BP_300_	30			
M123A10BP_330_	33			
M123A10BP_360_	36			
M123A10BP_390_	39			
M123A10BP_430_	43			
M123A10BP_470_	47	F, J, K	BP	50,100
M123A10BP_510_	51			
M123A10BP_560_	56			
M123A10BP_620_	62			
M123A10BP_680_	68			
M123A10BP_750_	75			

Part Number 1/ (0805 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A10BP_820_	82	F, J, K	BP	50,100
M123A10BP_910_	91			
M123A10BP_101_	100			
M123A10BP_111_	110			
M123A10BP_121_	120			
M123A10BP_131_	130			
M123A10BP_151_	150			
M123A10BP_161_	160			
M123A10BP_181_	180			
M123A10BP_201_	200			
M123A10BP_221_	220	F,J,K	BP	50,100
M123A10BP_241_	240			
M123A10BP_271_	270			
M123A10BP_301_	300			
M123A10BP_331_	330			
M123A10BP_361_	360			
M123A10BP_391_	390			
M123A10BP_431_	430			
M123A10BP_471_	470			
M123A10BPB511_	510	F,J,K	BP	50
M123A10BPB561_	560			
M123A10BPB621_	620			
M123A10BPB681_	680			
M123A10BX_331K_	330			
M123A10BX_391K_	390			
M123A10BX_471K_	470			
M123A10BX_561K_	560			
M123A10BX_681K_	680			
M123A10BX_821K_	820			
M123A10BX_102K_	1,000	K	BX	50,100
M123A10BX_122K_	1,200			
M123A10BX_152K_	1,500			
M123A10BX_182K_	1,800			
M123A10BX_222K_	2,200			
M123A10BX_272K_	2,700			
M123A10BX_332K_	3,300			
M123A10BX_392K_	3,900			
M123A10BX_472K_	4,700			
M123A10BXB562K_	5,600	K	BX	50
M123A10BXB682K_	6,800			
M123A10BXB822K_	8,200			
M123A10BXB103K_	10,000			
M123A10BXB123K_	12,000			
M123A10BXB153K_	15,000			
M123A10BXB183K_	18,000			

MIL-PRF-123/STYLE CKS52, -/11

Part Number 1/ (1210 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A11BP_301_	300	F, J, K	BP	50,100
M123A11BP_331_	330			
M123A11BP_361_	360			
M123A11BP_391_	390			
M123A11BP_431_	430			
M123A11BP_471_	470			
M123A11BP_511_	510			
M123A11BP_561_	560			
M123A11BP_621_	620			
M123A11BP_681_	680			
M123A11BP_751_	750			
M123A11BP_821_	820			
M123A11BP_911_	910			
M123A11BP_102_	1,000			
M123A11BP_112_	1,100			
M123A11BP_122_	1,200	F, J, K	BP	50,100
M123A11BP_132_	1,300			
M123A11BP_152_	1,500			
M123A11BP_162_	1,600			
M123A11BP_182_	1,800			
M123A11BP_202_	2,000			
M123A11BP_222_	2,200			

Part Number 1/ (1210 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A11BPB242_	2,400	F, J, K	BP	50
M123A11BPB272_	2,700			
M123A11BPB302_	3,000			
M123A11BPB332_	3,300			
M123A11BX_562_	5,600	K, M	BX	50,100
M123A11BX_682_	6,800			
M123A11BX_822_	8,200			
M123A11BX_103_	10,000			
M123A11BX_123_	12,000			
M123A11BX_153_	15,000	K, M	BX	50,100
M123A11BX_183_	18,000			
M123A11BX_223_	22,000			
M123A11BX_273_	27,000			
M123A11BXB333_	33,000			
M123A11BXB393_	39,000	K, M	BX	50
M123A11BXB473_	47,000			
M123A11BXB563_	56,000			
M123A11BXB683_	68,000			
M123A11BXB823_	82,000			
M123A11BXB104_	100,000			

MIL-PRF-123/STYLE CKS53, -/12

Part Number 1/ (1808 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A12BP_301_	300	F, J, K	BP	50,100
M123A12BP_331_	330			
M123A12BP_361_	360			
M123A12BP_391_	390			
M123A12BP_431_	430			
M123A12BP_471_	470			
M123A12BP_511_	510			
M123A12BP_561_	560			
M123A12BP_621_	620			
M123A12BP_681_	680			
M123A12BP_751_	750			
M123A12BP_821_	820			
M123A12BP_911_	910			
M123A12BP_102_	1,000			
M123A12BP_112_	1,100			
M123A12BP_122_	1,200	F, J, K	BP	50,100
M123A12BP_132_	1,300			
M123A12BP_152_	1,500			
M123A12BP_162_	1,600			
M123A12BP_182_	1,800			
M123A12BP_202_	2,000			
M123A12BP_222_	2,200			

Part Number 1/ (1808 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A12BX_562K_	5,600	K	BX	50,100
M123A12BX_682K_	6,800			
M123A12BX_822K_	8,200			
M123A12BX_103K_	10,000			
M123A12BX_123K_	12,000			
M123A12BX_153K_	15,000	K	BX	50,100
M123A12BX_183K_	18,000			
M123A12BX_223K_	22,000			
M123A12BX_273K_	27,000			
M123A12BX_333K_	33,000			
M123A12BXB393K_	39,000	K	BX	50
M123A12BXB473K_	47,000			
M123A12BXB563K_	56,000			
M123A12BXB683K_	68,000			
M123A12BXB823K_	82,000			
M123A12BXB104K_	100,000			

MIL-PRF-123/STYLE CKS54, -/13

Part Number 1/ (2225 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A13BPB112_	1,100	F, J, K	BP	50
M123A13BPB122_	1,200			
M123A13BPB132_	1,300			
M123A13BPB152_	1,500			
M123A13BPB162_	1,600			
M123A13BPB182_	1,800			
M123A13BPB202_	2,000			
M123A13BPB222_	2,200			
M123A13BPB242_	2,400			
M123A13BPB272_	2,700			
M123A13BPB302_	3,000			
M123A13BPB332_	3,300			
M123A13BPB362_	3,600			
M123A13BPB392_	3,900			
M123A13BPB432_	4,300			
M123A13BPB472_	4,700	F, J, K	BP	50
M123A13BPB512_	5,100			

Part Number 1/ (2225 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A13BPB562_	5,600	F, J, K	BP	50
M123A13BPB622_	6,200			
M123A13BPB682_	6,800			
M123A13BPB752_	7,500	F, J, K	BP	50
M123A13BPB822_	8,200			
M123A13BPB912_	9,100			
M123A13BPB103_	10,000			
M123A13BXB124K_	120,000	K	BX	50
M123A13BXB154K_	150,000			
M123A13BXB184K_	180,000			
M123A13BXB224K_	220,000			
M123A13BXB274K_	270,000			
M123A13BXB334K_	330,000	K	BX	50
M123A13BXB394K_	394,000			
M123A13BXB474K_	474,000			
M123A13BXB105K_	1,000,000			

MIL-PRF-123/STYLE CKS55, -/21

Part Number 1/ (1206 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A21BPC1R0__	1.0	B, C	BP	100
M123A21BPC1R1__	1.1			
M123A21BPC1R2__	1.2			
M123A21BPC1R3__	1.3			
M123A21BPC1R5__	1.5			
M123A21BPC1R6__	1.6			
M123A21BPC1R8__	1.8	B, C B, C, D		
M123A21BPC2R0__	2.0			
M123A21BPC2R2__	2.2			
M123A21BPC2R4__	2.4			
M123A21BPC2R7__	2.7			
M123A21BPC3R0__	3.0			
M123A21BPC3R3__	3.3			
M123A21BPC3R6__	3.6			
M123A21BPC3R9__	3.9			
M123A21BPC4R3__	4.3			
M123A21BPC4R7__	4.7			
M123A21BPC5R1__	5.1			
M123A21BPC5R6__	5.6			
M123A21BPC6R2__	6.2			
M123A21BPC6R8__	6.8			
M123A21BPC7R5__	7.5	B, C, D	BP	100
M123A21BPC8R2__	8.2			
M123A21BPC9R1__	9.1			
M123A21BPC9R1__	9.1			

Part Number 1/ (1206 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A21BPC100__	10	F, J, K	BP	100
M123A21BPC110__	11			
M123A21BPC120__	12			
M123A21BPC130__	13			
M123A21BPC150__	15			
M123A21BPC160__	16			
M123A21BPC180__	18			
M123A21BPC200__	20			
M123A21BPC240__	24			
M123A21BPC270__	27			
M123A21BPC330__	33	F, J, K	BP	100
M123A21BPC360__	36			
M123A21BPC390__	39			
M123A21BPC430__	43			
M123A21BPC470__	47			
M123A21BPC510__	51			
M123A21BPC560__	56			
M123A21BPC620__	62			
M123A21BPC680__	68			
M123A21BPC750__	75			
M123A21BPC820__	82	F, J, K	BP	100
M123A21BPC910__	91			
M123A21BPC101__	100			
M123A21BPC101__	100			

MIL-PRF-123/STYLE CKS55, -/21

Part Number 1/ (1206 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A21BPC111__	110	F, J, K	BP	100
M123A21BPC121__	120			
M123A21BPC131__	130			
M123A21BPC151__	150			
M123A21BPC161__	160			
M123A21BPC181__	180			
M123A21BPC201__	200			
M123A21BPC221__	220			
M123A21BPC241__	240			
M123A21BPC271__	270			
M123A21BPC301__	300			
M123A21BPC331__	330			
M123A21BPC361__	360			
M123A21BPC391__	390			
M123A21BPC431__	430			
M123A21BPC471__	470			
M123A21BPC511__	510			
M123A21BPC561__	560			
M123A21BPC621__	620			
M123A21BPC681__	680			
M123A21BPC751__	750	F, J, K	BP	100
M123A21BPC821__	820			
M123A21BPC911__	910			
M123A21BPC102__	1,000			

Part Number 1/ (1206 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A21BPB112__	1,100	F, J, K	BP	50
M123A21BPB122__	1,200			
M123A21BPB132__	1,300			
M123A21BPB152__	1,500			
M123A21BPB162__	1,600			
M123A21BPB182__	1,800	F, J, K	BP	50
M123A21BPB202__	2,000			
M123A21BPB222__	2,200			
M123A21BXC472__	4,700	K, M	BX	100
M123A21BXC562__	5,600			
M123A21BXC682__	6,800			
M123A21BXC822__	8,200			
M123A21BXC103__	10,000			
M123A21BXC123__	12,000	K, M	BX	100
M123A21BXC153__	15,000			
M123A21BXB183__	18,000	K, M	BX	50
M123A21BXB223__	22,000			
M123A21BXB273__	27,000			
M123A21BXB333__	33,000	K, M	BX	50
M123A21BXB393__	39,000			

MIL-PRF-123/STYLE CKS56, -/22

Part Number 1/ (1812 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A22BPC122__	1,200	F, J, K	BP	100
M123A22BPC152__	1,500			
M123A22BPC182__	1,800			
M123A22BPC222__	2,200			
M123A22BPC242__	2,400			
M123A22BPC272__	2,700			
M123A22BPC302__	3,000			
M123A22BPC332__	3,300			
M123A22BPC362__	3,600			
M123A22BPC392__	3,900			
M123A22BPC432__	4,300	F, J, K	BP	100
M123A22BPC472__	4,700			
M123A22BPB512__	5,100	F, J, K	BP	50
M123A22BPB562__	5,600			
M123A22BPB622__	6,200			
M123A22BPB682__	6,800			
M123A22BPB752__	7,500			
M123A22BPB822__	8,200	F, J, K	BP	50
M123A22BPB912__	9,100			
M123A22BPB103__	10,000			

Part Number 1/ (1812 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A22BXC273__	27,000	K, M	BX	100
M123A22BXC333__	33,000			
M123A22BXC393__	39,000			
M123A22BXC473__	47,000			
M123A22BXC563__	56,000	K, M	BX	100
M123A22BXB823__	82,000	K, M	BX	50
M123A22BXB104__	100,000			
M123A22BXB124__	120,000			
M123A22BXB154__	150,000			
M123A22BXB184__	180,000	K, M	BX	50

MIL-PRF-123/STYLE CKS57, -/23

Part Number 1/ (1825 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A23BPC392__	3,900	F, J, K	BP	100
M123A23BPC472__	4,700			
M123A23BPC512__	5,100			
M123A23BPC562__	5,600			
M123A23BPC622__	6,200			
M123A23BPC682__	6,800			
M123A23BPC752__	7,500			
M123A23BPC822__	8,200			
M123A23BPC912__	9,100			
M123A23BPC103__	10,000			
M123A23BPB113__	11,000	F, J, K	BP	50
M123A23BPB123__	12,000			
M123A23BPB133__	13,000			
M123A23BPB153__	15,000			
M123A23BPB163__	16,000			
M123A23BPB183__	18,000	F, J, K	BP	50
M123A23BPB203__	20,000			
M123A23BPB223__	22,000			

Part Number 1/ (1825 Size Chip)	Capacitance pF	Capacitance Tolerance	Voltage- Temperature Limits	Rated Voltage
M123A23BXC563__	56,000	K, M	BX	100
M123A23BXC683__	68,000			
M123A23BXC823__	82,000			
M123A23BXC104__	100,000			
M123A23BXC124__	120,000			
M123A23BXC154__	150,000	K, M	BX	100
M123A23BXB184__	180,000	K, M	BX	50
M123A23BXB224__	220,000			
M123A23BXB274__	270,000			
M123A23BXB334__	330,000			
M123A23BXB394__	390,000			
M123A23BXB474__	470,000	K, M	BX	50