

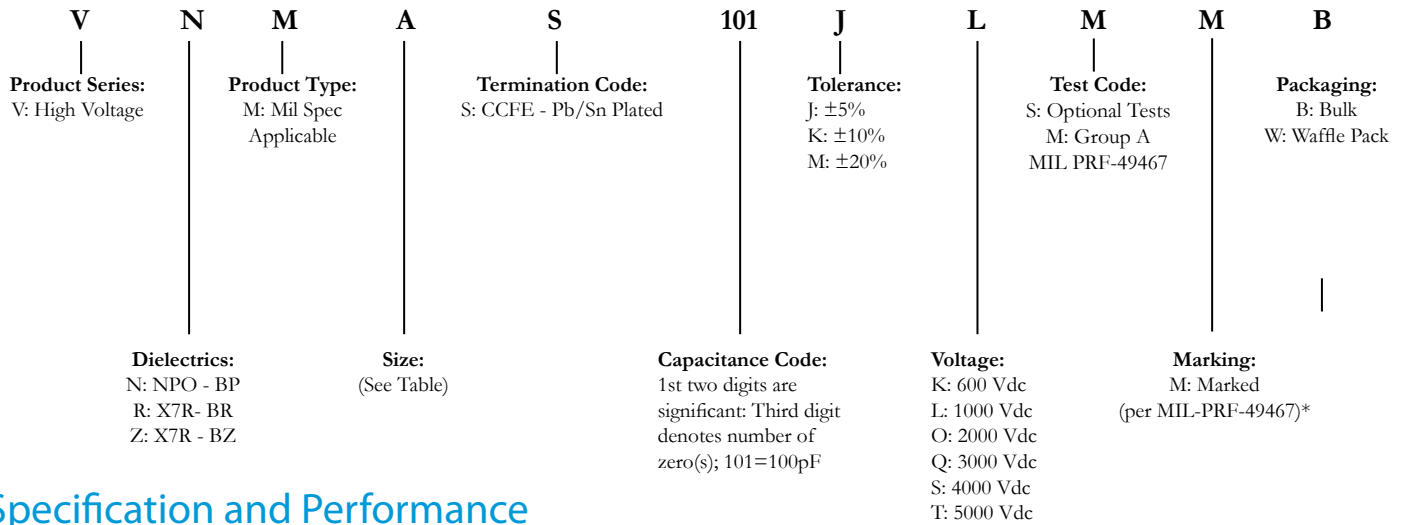
Features

- Capacitance Range: 10pF to .47μF
- Operating Temperature Range: -55°C to 125°C
- Voltage Range: 600V to 5kV
- High Reliability Long Life
- Conformal Coated
- Sizes and Values Conform to MIL-PRF-49467



VNM/VRM/VZM series is high voltage radial lead multilayer ceramic capacitors for use in high reliability commercial, industrial and military applications. These capacitors are designed in accordance with MIL-PRF-49467 and can be supplied to BP, BR, and BZ voltage temperature limits. Each capacitor is 100% tested physically and electrically to Group A Inspection, Subgroups 1, 3, 4, as defined in MIL-PRF-49467. AFM has in-house partial discharge (corona) testing capability and this test is available as an option. Group B Inspection is also available as an option.

AFM Part Number Code

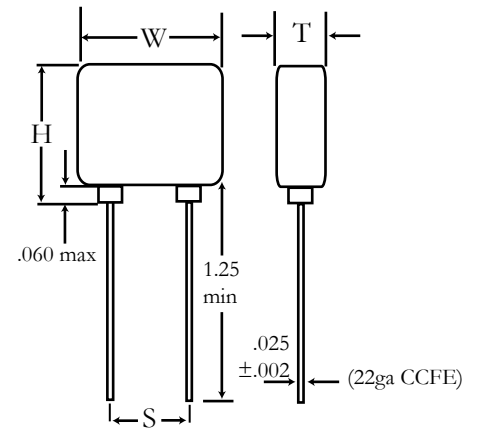


Specification and Performance

BP, BR and BZ Temperature Coefficient:	See "Voltage - Temperature Limits" table on next page
Insulation Resistance (IR, at Rated Voltage):	25°C > 100,000 MΩ or 1000 MΩμF 125°C > 10,000 MΩ or 100 MΩμF Whichever is Less
Dissipation Factor:	0.15% max for BP 2.5% max for BR and BZ

Size Information

Style	Sizes (Max) Inches (mm)			Lead Spacing ±0.30 (S)
	Width (W)	Height (H)	Thickness (T)	
A	.250 (6.35)	.220 (5.59)	.200 (5.08)	.170 (4.32)
B	.320 (8.13)	.280 (7.11)	.250 (6.35)	.220 (5.59)
C	.370 (9.40)	.300 (7.62)	.250 (6.35)	.275 (6.99)
D	.470 (11.94)	.400 (10.16)	.270 (6.86)	.375 (9.53)
E	.570 (14.48)	.500 (12.70)	.270 (6.86)	.475 (12.07)
F	.670 (17.02)	.600 (15.24)	.270 (6.86)	.575 (14.61)
G	.770 (19.56)	.720 (18.29)	.270 (6.86)	.675 (17.15)
Extended Case Codes				
J	1.25 (31.75)	.600 (15.24)	.270(6.86)	1.10 (27.94)
K	1.45 (36.83)	.720 (18.29)	.270 (6.86)	1.30 (33.02)
L	.450 (11.43)	.220 (5.59)	.200 (5.08)	.300 (7.62)
M	.450 (11.43)	.220 (5.59)	.270 (6.86)	.300 (7.62)



Voltage - Temperature Limits (-55°C to +125°C)			
TC	No Load	Rated Voltage	% Change
BP	0±30ppm/°C	100%	0±30ppm/°C
BR	±15%	100%	+15, -40%
BZ	±15%	60%	+15, -45%

BP COG (NPO) Dielectric Capacitance Ranges

Style	600V		1kV		2kV		3kV		4kV		5kV	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
A	10pF	5600pF	10pF	1000pF	10pF	330pF						
B	10pF	5600pF	56pF	1800pF	22pF	820pF	10pF	560pF				
C	6800pF	.012µF	68pF	2700pF	27pF	1200pF	22pF	680pF				
D	.018µF	.039µF	120pF	4700pF	47pF	2200pF	39pF	1500pF	18pF	1000pF		
E	.047µF	.068µF	270pF	.018 µF	100pF	4700pF	100pF	3300pF	100pF	1800pF	100pF	1000pF
F			390pF	.018µF	150pF	6800pF	150pF	5600pF	150pF	3300pF	150pF	1800pF
G			470pF	.027µF	270pF	.010µF	270pF	6800pF	270pF	4700pF	270pF	3300pF
K											560pF	3900pF
L									10pF	82pF		
M									47pF	820pF		

BR (X7R) Dielectric Capacitance Ranges

Style	600V		1kV		2kV		3kV		4kV		5kV	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
A	100pF	.027μF	470pF	4700pF	220pF	1500pF						
B	.033μF	.082μF	1200pF	.010μF	390pF	3900pF	270pF	1500pF				
C		.100μF	1500pF	.027μF	820pF	5600pF	560pF	2200pF				
D	.12μF	.270μF	3300pF	.068μF	1200pF	.015μF	1000pF	6800pF	100pF	4700pF		
E	.330μF	.470μF	6800pF	.150μF	2700pF	.033μF	2700pF	.012μF	470pF	6800pF	390pF	2200pF
F			.100μF	.270μF	3900pF	.047μF	3300pF	.022μF	680pF	.010μF	560pF	5600pF
G			.12μF	.470μF	6800pF	.100μF	5600pF	.039μF	1200pF	.018μF	1200pF	8200pF
J							6800pF	.047μF	1800pF	.027μF	2200pF	.015μF
K							8200pF	.082μF	2700pF	.047μF	3300pF	.022μF
M									100pF	820pF	100pF	560pF

BZ (X7R) Dielectric Capacitance Ranges

Style	1kV		2kV		3kV		4kV		5kV	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
A	680pF	.010μF	220pF	2700pF						
B	1200pF	.015μF	560pF	6800pF	560pF	2200pF				
C	1500pF	.022μF	680pF	.010μF	680pF	3300pF				
D	3300pF	.056μF	1200pF	.027μF	1200pF	8200pF	120pF	6800pF		
E	6800pF	.120μF	2700pF	.056μF	2700pF	.018μF	680pF	.010μF	470pF	6800pF
F	.100μF	.180μF	3900pF	.082μF	3900pF	.027μF	820pF	.015μF	560pF	.010μF
G			5600pF	.150μF	6800pF	.047μF	1200μF	.027μF	1200pF	.015μF
J					6800pF	.047μF	2200pF	.039μF	2200pF	.022μF
K							3300pF	.056μF	3300pF	.033μF