

# VNT/VXT

High Voltage, High Temperature 200°C "T" Series  
Radial Leaded COG (NPO)/X7R Capacitors

## Features

- Capacitance Range: 12pF to .56μF
- Operating Temperature: -55°C to +200°C
- Rated Voltage: 500V to 4kV
- High Reliability
- Conformal Coated
- 200°C Burn-In Testing

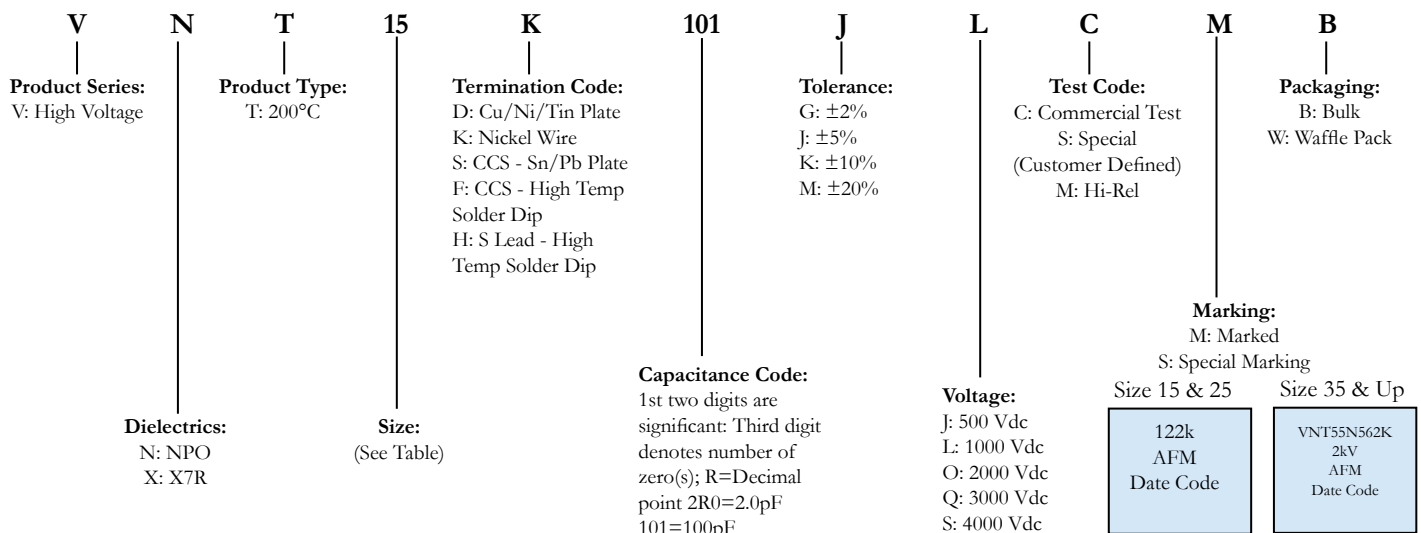


VNT/VXT series is high voltage, high temperature capacitors which are based on AFM's industry proven high temperature HNT/HXT Series of capacitors. These capacitors have operating voltage ratings of 500 volts up to 4000 volts. The VNT/VXT Series is designed using a high insulation resistance, high dielectric constant barium titanate dielectric system.

## Applications

Typical Functional Applications: Bypass, Coupling, Tuning, Feedback, Impedance Matching and DC Blocking. Devices such as RF oscillators and precision timing circuits requiring a predictable temperature coefficient are examples of devices utilizing these capacitors.

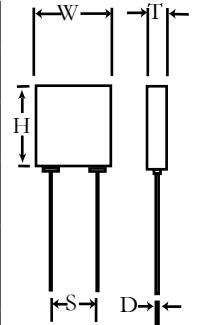
## AFM Part Number Code



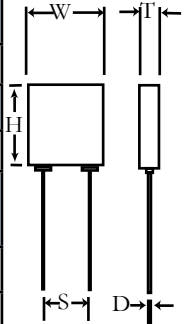
# VNT

High Voltage, High Temperature 200°C "T" Series  
Radial Leaded COG (NPO) Capacitors

Style		VNT 15				VNT 25				VNT 35				VNT 45			
Dimensions	W Max	.250 (6.35)				.320 (8.13)				.420 (10.67)				.520 (13.21)			
	H Max	.220 (5.59)				.300 (7.62)				.400 (10.16)				.500 (12.70)			
	T Max	.150 (3.81)				.250 (6.35)				.250 (6.35)				.300 (7.62)			
	D ± .002 (.0508)	.025 (.635)				.025 (.635)				.025 (.635)				.025 (.635)			
	S	.170 (4.32)				.200 (5.08)				.300 (7.62)				.400 (10.16)			
Capacitance Range (pF)	Vdc	500	1kV	2kV	500	1kV	2kV	3kV	500	1kV	2kV	3kV	500	1kV	2kV	3kV	
	12																
	15																
	18																
	22																
	28																
	33																
	39																
	47																
	56																
	68																
	82																
	100																
	120																
	150																
	180																
	220																
	270																
	330																
	390																
470																	
560																	
680																	
820																	
1000																	
1200																	
1500																	
1800																	
2200																	
2700																	
3300																	
3900																	
4700																	
5600																	
6800																	



Style		VNT 55					VNT 65					VNT 71				
Dimensions	W Max	.620 (15.75)					.720 (18.29)					.820 (20.83)				
	H Max	.600 (15.24)					.700 (17.78)					.700 (17.78)				
	T Max	.300 (7.62)					.300 (7.62)					.350 (8.89)				
	D ± .002 (.0508)	.025 (.635)					.025 (.635)					.025 (.635)				
	S	.500 (12.70)					.600 (15.24)					.700 (17.78)				
	Vdc	500	1kV	2kV	3kV	4kV	500	1kV	2kV	3kV	4kV	500	1kV	2kV	3kV	4kV
Capacitance Range	1000pF															
	1200pF															
	1800pF															
	2200pF															
	2700pF															
	3300pF															
	3900pF															
	4700pF															
	5600pF															
	6800pF															
	8200pF															
	.01μF															
	.012μF															
.015μF																
.018μF																
.022μF																
.027μF																
.033μF																



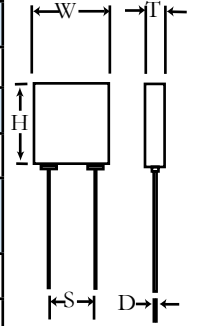
## Dielectric Characteristics COG (NPO)

Capacitance Range	12pF to .180μF
Capacitance Tolerances	G±2%, J±5%, K±10%, M±20%
Dissipation Factor	0.1% Max (25°C, 1 KHz) 1Vrms ±0.2V
Temperature Range	-55°C to +200°C
Temperature Coefficient of Capacitance	0±30ppm/°C
Insulation Resistance 1000V or Rated V (whichever is less) at 25°C	100GΩ min or 1000MΩμF Whichever is Less
Insulation Resistance 1000V or Rated V (whichever is less) at 200°C	1GΩ min or 10MΩμF Whichever is Less
Voltage Range	500V to 4kV (See Table)
Dielectric Withstand	1.2 x Rated Voltage 5 Second Min
Aging	None

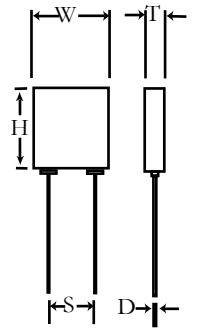
# VXT

High Voltage, High Temperature 200°C "T" Series  
Radial Leaded X7R Capacitors

Style		VXT 15				VXT 25				VXT 35				VXT 45			
Dimensions	W Max	.250 (6.35)				.320 (8.13)				.420 (10.67)				.520 (13.21)			
	H Max	.220 (5.59)				.300 (7.62)				.400 (10.16)				.500 (12.70)			
	T Max	.150 (3.81)				.250 (6.35)				.250 (6.35)				.300 (7.62)			
	D ± .002 (.0508)	.025 (.635)				.025 (.635)				.025 (.635)				.025 (.635)			
	S	.170 (4.32)				.200 (5.08)				.300 (7.62)				.400 (10.16)			
Voltage dc		500	1kV	2kV	500	1kV	2kV	3kV	500	1kV	2kV	3kV	500	1kV	2kV	3kV	
Capacitance Range	680pF																
	820pF																
	1000pF																
	1200pF																
	1500pF																
	1800pF																
	2200pF																
	2700pF																
	3300pF																
	3900pF																
	4700pF																
	5600pF																
	6800pF																
	8200pF																
	.01μF																
	.012μF																
	.015μF																
	.018μF																
	.022μF																
	.027μF																
.033μF																	
.039μF																	
.047μF																	
.056μF																	
.068μF																	
.082μF																	
.100μF																	
.120μF																	
.150μF																	
.180μF																	



Style		VXT 55					VXT 65					VXT 71				
Dimensions	W Max	.620 (15.75)					.720 (18.29)					.820 (20.83)				
	H Max	.600 (15.24)					.700 (17.78)					.700 (17.78)				
	T Max	.300 (7.62)					.300 (7.62)					.350 (8.89)				
	D ± .002 (.0508)	.025 (.635)					.025 (.635)					.025 (.635)				
	S	.500 (12.7)					.600 (15.24)					.700 (17.78)				
Voltage dc		500	1kV	2kV	3kV	4kV	500	1kV	2kV	3kV	4kV	500	1kV	2kV	3kV	4kV
Capacitance Range (pF)	.012															
	.015															
	.018															
	.022															
	.027															
	.033															
	.039															
	.047															
	.056															
	.068															
	.082															
	.100															
	.120															
	.150															
.180																
.220																
.270																
.330																
.390																
.470																
.560																
.680																



## Dielectric Characteristics X7R

Capacitance Range	680pF to .56μF
Capacitance Tolerances	J±5%, K±10%, M±20%
Dissipation Factor	2.5% Max (25°C, 1 KHz) 1Vrms ±0.2V, <.20% @200°C
Temperature Range	-55°C to +200°C
Temperature Coefficient of Capacitance	+15%, -40% to 200°C
Insulation Resistance 1000V or Rated V (whichever is less) at 25°C	10GΩ min or 100MΩμF Whichever is Less
Insulation Resistance 1000V or Rated V (whichever is less) at 200°C	1GΩ min or 10MΩμF Whichever is Less
Voltage Range	500V to 5kV (See Table)
Dielectric Withstand	1.2 x Rated Voltage 5 Second Min
Aging	None