







# CERAMIC CAPACITORS

## Single-Layer Capacitors

The DNA of tech.™

### AC Rated Ceramic Disc Capacitors, Safety Rated

	Product Family	Series	Voltage		Capacitance	Tolerance	Class	Temperature Characteristics
			X Rating	Y Rating				
X1 / Y1	Vishay BCcomponents 	<a href="#">VY1</a>	760 V <sub>AC</sub>	500 V <sub>AC</sub>	10 pF to 22 pF	± 10 % ± 20 % ± 20 %	1	U2J (N750)
					33 pF to 4.7 nF		2	Y5S, Y5U
					1 nF to 4.7 nF		2	Y5V
		<a href="#">Compact Series VY1°C</a>	760 V <sub>AC</sub>	500 V <sub>AC</sub>	470 pF to 4.7 nF	± 20 %	2	Y5U
	<a href="#">AEC-Q200 Qualified AY1</a>	760 V <sub>AC</sub>	500 V <sub>AC</sub>	470 pF to 4.7 nF	± 20 %	2	Y5U	
	<a href="#">SMDY1</a>	760 V <sub>AC</sub>	500 V <sub>AC</sub>	470 pF to 4.7 nF	± 20 %	2	Y5U	
	Vishay Draloric 	<a href="#">VKP</a>	760 V <sub>AC</sub>	500 V <sub>AC</sub>	470 pF to 4.7 nF	± 10 % ± 20 %	2	Y5U
		<a href="#">WKP</a>	760 V <sub>AC</sub>	500 V <sub>AC</sub>	33 pF		1	U2J (N750)
					47 pF to 4.7 nF		2	Y5S, Y5T, Y5U
	Vishay Cera-Mite 	<a href="#">440L</a>	760 V <sub>AC</sub>	500 V <sub>AC</sub>	10 pF to 47 pF	± 10 % ± 10 % ± 20 %	1	C0G (P100), U2J (N750) P3K (N1500), R3L (N2000)
68 pF to 20 nF					2		X7R Y5U	
X1 / Y2	Vishay BCcomponents 	<a href="#">VY2</a>	440 V <sub>AC</sub>	300 V <sub>AC</sub>	10 pF to 47 pF	± 10 % ± 20 % ± 20 %	1	U2J (N750)
					68 pF to 10 nF		2	Y5S, Y5U
					1 nF to 10 nF		2	Y5V
	<a href="#">AEC-Q200 Qualified AY2</a>	440 V <sub>AC</sub>	300 V <sub>AC</sub>	10 pF to 47 pF	± 10 % ± 20 %	1	U2J (N750)	
				68 pF to 10 nF		2	Y5S, Y5U	
	Vishay Draloric 	<a href="#">WYO</a>	440 V <sub>AC</sub>	250 V <sub>AC</sub>	1.0 nF to 12 nF	± 20 %	2	Y5U
		<a href="#">VKO</a>	440 V <sub>AC</sub>	300 V <sub>AC</sub>	1.0 nF to 4.7 nF	± 10 % ± 20 %	2	Y5U
		<a href="#">WKO</a>	440 V <sub>AC</sub>	300 V <sub>AC</sub>	33 pF to 47 pF	± 10 % ± 20 %	1	U2J (N750)
	68 pF to 4.7 nF				2		Y5S, Y5T, Y5U	
	Vishay Cera-Mite 	<a href="#">25Y</a>	400 V <sub>AC</sub>	250 V <sub>AC</sub>	1.0 nF to 8.0 nF	± 20 %	2	Y5S
<a href="#">30LVS</a>		400 V <sub>AC</sub>	250 V <sub>AC</sub>	1.0 nF to 10 nF	± 20 %	2	Y5U, Y5V	
<a href="#">30LV</a>		400 V <sub>AC</sub>	300 V <sub>AC</sub>	10 pF to 68 pF	± 10 % ± 10 % ± 20 %	1	C0G (P100), U2J (N750) P3K (N1500), R3L (N2000) S3L (N3300)	
	100 pF to 15 nF			2		X7R Y5U		
X1 / Y4	Vishay Cera-Mite 	<a href="#">125L</a>	400 V <sub>AC</sub>	125 V <sub>AC</sub>	1.0 nF to 50 nF	± 20 %	2	Y5V
X1	Vishay Draloric 	<a href="#">W1X</a>	275 V <sub>AC</sub>	-	4.7 nF to 22 nF	± 20 %	2	Y5V
X2	Vishay Cera-Mite 	<a href="#">20VL</a>	400 V <sub>AC</sub>	-	9.0 nF to 100 nF	± 20 %	2	Y5V Z5U



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## Ceramic Capacitors for Automotive Applications

The DNA of tech.™

### Leaded MLCCs

**Best in class performance.** Built for the most extreme automotive operating conditions, Vishay leaded MLCCs offer industry high operating temperatures, the utmost electrical and mechanical robustness, and exceptional reliability.



- AEC-Q200 qualified
- PPAP documentation available
- High reliability MLCC insert with noble metal electrodes, produced in a unique wet build process
- Compliant with ELV Directive



	Product Family	Series	Voltage	Capacitance	Tolerance	Class	Temperature Characteristics
Leaded MLCCs		<a href="#">Axial-Leaded MLCCs</a> <a href="#">A...R Series</a>	50 V <sub>DC</sub> to 200 V <sub>DC</sub>	100 pF to 1 μF	± 5 % ± 10 % ± 20 %	1 and 2	C0G X7R
			<b>Features:</b>				<ul style="list-style-type: none"> <li>• High operating temperature up to 160 °C</li> <li>• Axial mounting style</li> </ul>
		<a href="#">Radial-Leaded MLCCs</a> <a href="#">K...R Series</a>	50 V <sub>DC</sub> to 200 V <sub>DC</sub>	100 pF to 1 μF	± 5 % ± 10 % ± 20 %	1 and 2	C0G X7R
			<b>Features:</b>				<ul style="list-style-type: none"> <li>• High operating temperature up to 160 °C</li> <li>• Radial mounting style</li> <li>• Crimp and straight leadstyles</li> </ul>
		<a href="#">High Operating Temperature Radial-Leaded MLCCs</a> <a href="#">K...H Series</a>	50 V <sub>DC</sub> to 200 V <sub>DC</sub>	100 pF to 1 μF	± 5 % ± 10 % ± 20 %	1 and 2	C0G X0U
			<b>Features:</b>				<ul style="list-style-type: none"> <li>• High operating temperature up to 175 °C</li> <li>• Radial mounting style</li> <li>• Crimp and straight leadstyles</li> </ul>

### Automotive Safety Capacitors

**The capacitors customers trust.** Vishay's automotive ceramic safety capacitors offer a market-leading lifetime to ensure proper function in safety-related applications such as on-board chargers and battery management systems in electric cars and plug-in hybrid electric vehicles (PHEV).



- AEC-Q200 qualified
- Comply with IEC 60384-14.4
- PPAP documentation available
- Compliant with ELV Directive



	Product Family	Series	Voltage	Capacitance	Tolerance	Class	Temperature Characteristics
X1 / Y1		<a href="#">AY1 Series</a>	500 V <sub>AC</sub> to 750 V <sub>AC</sub>	470 pF to 4700 pF	± 20 %	2	Y5U
			<b>Features:</b>				<ul style="list-style-type: none"> <li>• Vertical (inline) kinked or straight leads</li> <li>• 1000 temperature cycles from -55 °C to +125 °C</li> <li>• Can pass 10 kV pulses (10 per polarity)</li> </ul>
X1 / Y2		<a href="#">AY2 Series</a>	300 V <sub>AC</sub> to 440 V <sub>AC</sub>	10 pF to 10 nF	± 10 % ± 20 %	1 and 2	N750 (U2J), Y5S, Y5U
			<b>Features:</b>				<ul style="list-style-type: none"> <li>• Vertical (inline) kinked or straight leads</li> <li>• 3000 temperature cycles from -55 °C to +125 °C</li> </ul>

This document can be found at [www.vishay.com/doc?49177](http://www.vishay.com/doc?49177)