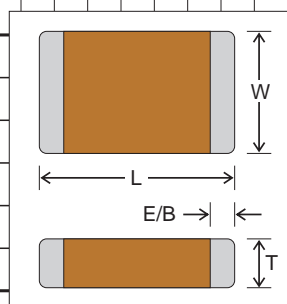


## SURFACEMOUNT CERAMIC MLCC's (10 - 200 VOLTS DC )

		Capacitance Value	0.5 pF	1.0-9.9 pF	10 pF	12 pF	15 pF	18 pF	22 pF	27 pF	33 pF	39 pF	47 pF	56 pF	68 pF	82 pF	100 pF	120 pF	150 pF	180 pF	220 pF	270 pF	330 pF	390 pF	470 pF	560 pF	680 pF	820 pF	1000 pF	1200 pF	1500 pF	1800 pF	2200 pF	2700 pF	3300 pF	3900 pF	4700 pF	5600 pF		
<b>R07 / 0402</b> L .040 ± .004" W .020 ± .004" T .025" Max E/B .010" Typ.	NPO																																							
	X7R																																							
	Z5U																																							
	Y5V																																							
<b>R14 / 0603</b> L .063 ± .010" W .032 ± .010" T .035" Max E/B .015" Typ.	NPO																																							
	X7R																																							
	Z5U																																							
	Y5V																																							
<b>R15 / 0805</b> L .080 ± .010" W .050 ± .010" T .051" Max E/B .020" Typ.	NPO																																							
	NPO																																							
	X7R																																							
	X7R																																							
	X5R																																							
	Z5U																																							
	Y5V																																							
<b>R18 / 1206</b> L .125 ± .010" W .062 ± .010" T .070" Max E/B .020" Typ.	NPO																																							
	NPO																																							
	X7R																																							
	X7R																																							
	X5R																																							
	Z5U																																							
	Y5V																																							
<b>S41 / 1210</b> L .125 ± .010" W .095 ± .010" T .070" Max E/B .020" Typ.	NPO																																							
	NPO																																							
	X7R																																							
	X7R																																							
	Z5U																																							
	Y5V																																							
<b>S43 / 1812</b> L .175 ± .010" W .125 ± .010" T .085" Max E/B .020" Typ.	NPO																																							
	X7R																																							
	Z5U																																							
	Y5V																																							

VOLTAGE CODE	
200 Volt	100 Volt
50 Volt	25 Volt
16 Volt	10 Volt



Notes: • Indicates popular values. Complete Electrical & Mechanical Characteristics may be found at [www.johanson-caps.com](http://www.johanson-caps.com)

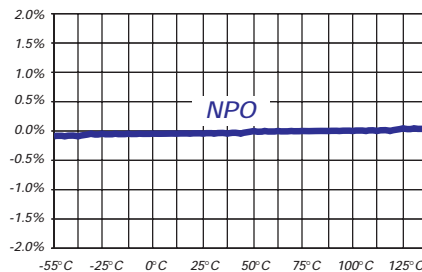
15191 Bledsoe St., Sylmar, California 91342 • (818) 364-9800 • FAX (818) 364-6100 [www.DataSheets4U.com](http://www.DataSheets4U.com)

## CERAMIC DIELECTRIC CHARATERISTICS

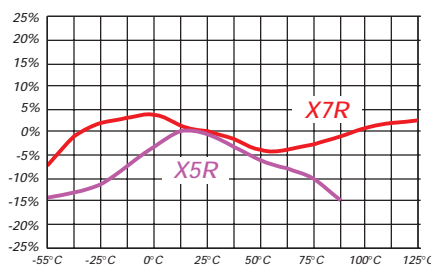
SPECIFICATION	NPO	X7R	X5R	Z5U	Y5V - Tanceram®
Temperature Coefficient:	0 ± 30 ppm/°C	± 15%	± 15%	+ 22% - 56%	+ 22% - 82%
Temperature Range:	-55 to +125°C	-55 to +125°C	-55 to +85°C	+10 to +85°C	-30 to 85°C
Dissipation Factor, Max.:	All Rated Voltages: 0.1%	For ≥ 50 WVDC: 2.5% For 25 WVDC: 3.0% For 16 WVDC: 3.5%	For ≥ 25 WVDC: 3.0% For 16 WVDC: 3.5% For 10 WVDC: 5.0%	For ≥ 25 WVDC: 4.0% For 16 WVDC: 5.0%	For ≥ 25 WVDC: 5.0% For 16 WVDC: 7.0% For 10 WVDC: 9.0%
Ageing, Typical per decade hr:	None	2.5%	2.5%	5.0%	7.0%
Insulation Resistance, Min. (1):	1000ΩF or 100 GΩ	1000ΩF or 100 GΩ	1000ΩF or 100GΩ	100ΩF or 10 GΩ	100 ΩF or 10 GΩ
Dielectric Strength, Min. (2):	2.5 X WVDC	2.5 X WVDC	2.5 X WVDC	2.5 X WVDC	2.5 X WVDC

Test Notes: 25°C, WVDC., Test Freq. = 1Khz ±50Hz, 1.0±0.2 VRMS, (1Mhz ±50KHz, 1.0±0.2 VRMS For NPO Values ≤ 100 pF), (1) whichever less, (2) 50 mA Max

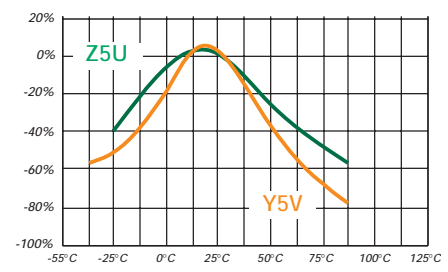
Typical Capacitance Change vs Temperature



Typical Capacitance Change vs Temperature



Typical Capacitance Change vs Temperature



## How To ORDER

500	R15	N	101	J	V	4	E
<b>VOLTAGE</b>	<b>CASE SIZE</b>	<b>DIELECTRIC</b>	<b>CAPACITANCE</b>	<b>TOLERANCE</b>	<b>TERMINATION</b>	<b>MARKING</b>	<b>TAPE MODIFIER</b>
100 = 10 V 160 = 16 V 250 = 25 V 500 = 50 V 101 = 100 V 201 = 200 V 251 = 250 V 501 = 500 V 102 = 1000 V 202 = 2000 V 302 = 3000 V	R07=0402 R14=0603 R15=0805 R18=1206 S41=1210 R29=1808 S43=1812 S49=1825 S48=2225	N = NPO W = X7R X = X5R Z = Z5U Y = Y5V	1st two digits are significant; third digit denotes number of zeros, R = decimal. 1R0 = 1.0 pF 100 = 10 pF 102 = 1,000 pF 474 = 0.47 μF	* B = ± 0.10 pF * C = ± 0.25 pF * D = ± 0.50 pF F = ± 1 % G = ± 2 % J = ± 5 % K = ± 10 % M = ± 20 % Z = +80 -20 % *Values < 10 pF only	V = Nickel Barrier	4 = Unmarked 6 = EIA "J" Code* *Not available on 0402 & 0603 sizes	Tape Tape Reel Code Type Size U Embossed 13" R Punched 7" E Embossed 7" T Punched 7" Z Embossed 5" Y Punched 5" Tape specifications conform to EIA RS481

Part number written: 500R15N101JV4E