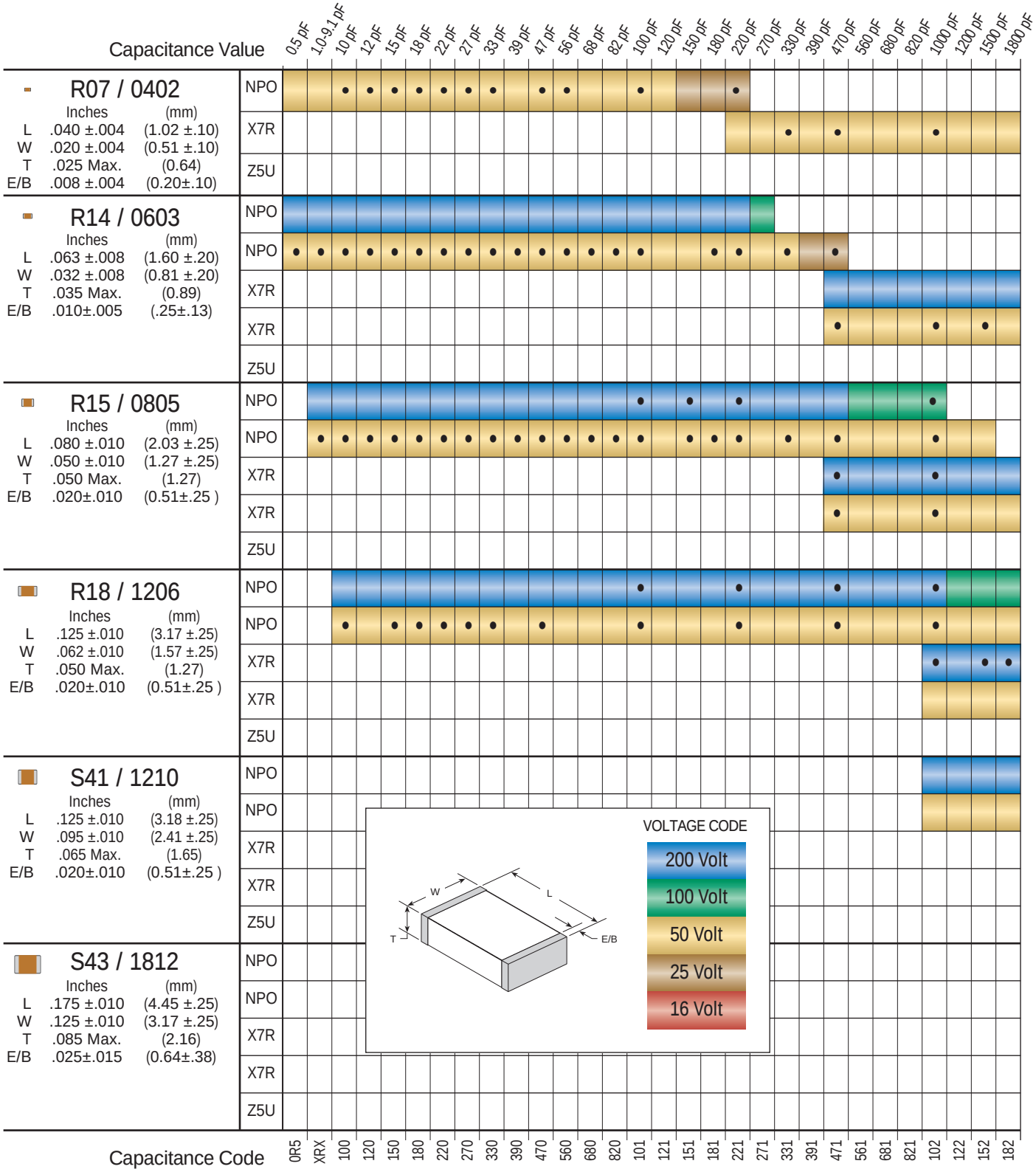
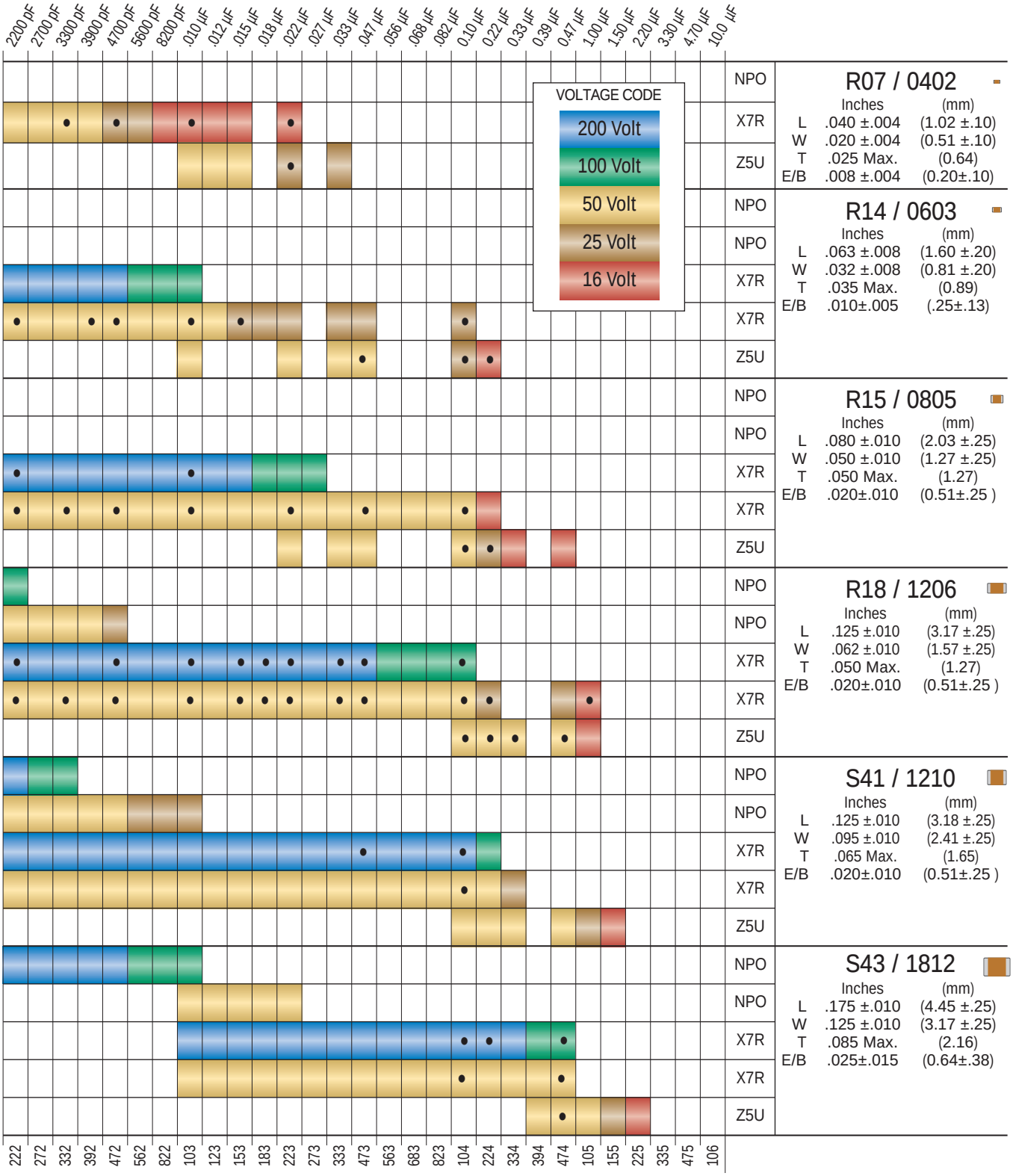
SURFACE MOUNT MLCCs 16 - 200 VDC



Notes: • Indicates popular values available from distributor inventory.

SURFACE MOUNT MLCCs 16 - 200 VDC



R07 / 0402

	Inches	(mm)
L	.040 ±.004	(1.02 ±.10)
W	.020 ±.004	(0.51 ±.10)
T	.025 Max.	(0.64)
E/B	.008 ±.004	(0.20±.10)

R14 / 0603

	Inches	(mm)
L	.063 ±.008	(1.60 ±.20)
W	.032 ±.008	(0.81 ±.20)
T	.035 Max.	(0.89)
E/B	.010±.005	(.25±.13)

R15 / 0805

	Inches	(mm)
L	.080 ±.010	(2.03 ±.25)
W	.050 ±.010	(1.27 ±.25)
T	.050 Max.	(1.27)
E/B	.020±.010	(0.51±.25)

R18 / 1206

	Inches	(mm)
L	.125 ±.010	(3.17 ±.25)
W	.062 ±.010	(1.57 ±.25)
T	.050 Max.	(1.27)
E/B	.020±.010	(0.51±.25)

S41 / 1210

	Inches	(mm)
L	.125 ±.010	(3.18 ±.25)
W	.095 ±.010	(2.41 ±.25)
T	.065 Max.	(1.65)
E/B	.020±.010	(0.51±.25)

S43 / 1812

	Inches	(mm)
L	.175 ±.010	(4.45 ±.25)
W	.125 ±.010	(3.17 ±.25)
T	.085 Max.	(2.16)
E/B	.025±.015	(0.64±.38)

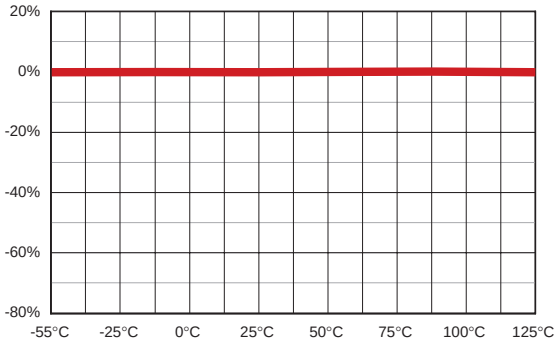
Dielectric specifications listed on page 20 & 21. For other size/voltage/capacitance combinations contact the factory.

ELECTRICAL PARAMETERS / PART NUMBER BREAKDOWN

NPO Dielectric Characteristics

TEMPERATURE COEFFICIENT:	0± 30 ppm/°C, -55 to +125°C
DISSIPATION FACTOR:	.001 (0.1%) max
AGING:	None
INSULATION RESISTANCE:	1000 ΩF or 100 GΩ,whichever is less @ 25°C,WVDC; 125°C IR is 10% of 25°C rating.
DIELECTRIC STRENGTH:	2.5 X WVDC Min., 25°C, 50 mA max
TEST PARAMETERS:	1kHz ±50Hz, 1.0±0.2 VRMS, Values > 100 pF 1Mhz ±50kHz, 1.0±0.2 VRMS, Values ≤ 100 pF

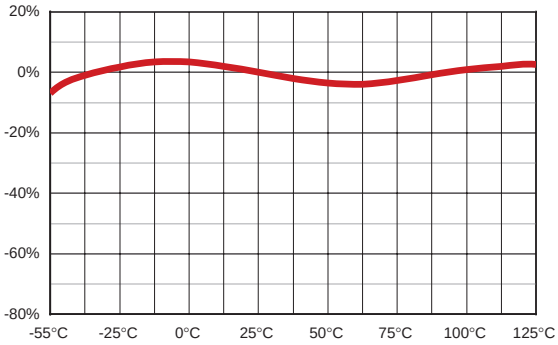
NPO Cap. vs Temperature



X7R Dielectric Characteristics

TEMPERATURE COEFFICIENT:	± 15%, -55 to +125°C
DISSIPATION FACTOR:	For ≥50 Volts: 2.5% max For 25 Volts: 3.0% max For 16 Volts: 3.5% max
AGING:	2.5% / decade hour
INSULATION RESISTANCE:	1000 ΩF or 100 GΩ,whichever is less @ 25°C,WVDC; 125°C IR is 10% of 25°C rating.
DIELECTRIC STRENGTH:	2.5 X WVDC Min., 25°C, 50 mA max
TEST PARAMETERS:	1kHz ±50Hz, 1.0±0.2 VRMS, 25°C

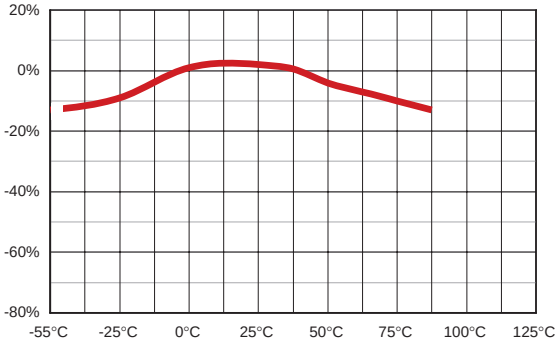
X7R Cap. vs Temperature



X5R Dielectric Characteristics

TEMPERATURE COEFFICIENT:	± 15%, -55 to +85°C
DISSIPATION FACTOR:	For 25 Volts: 3.0% max For 16 Volts: 3.5% max For 10 Volts: 5.0% max
AGING:	2.5% / decade hour
INSULATION RESISTANCE:	1000 ΩF or 100 GΩ,whichever is less @ 25°C,WVDC;
DIELECTRIC STRENGTH:	2.5 X WVDC Min., 25°C, 50 mA max
TEST PARAMETERS:	1kHz ±50Hz, 1.0±0.2 VRMS, 25°C

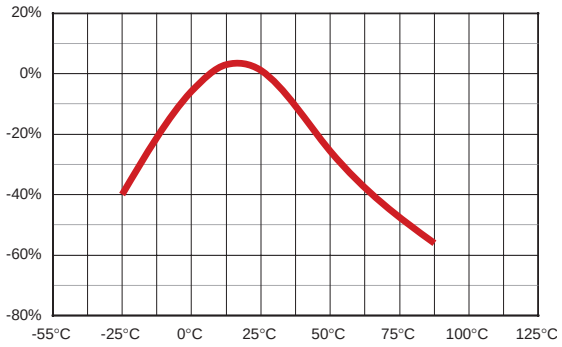
X5R Cap. vs Temperature



Z5U Dielectric Characteristics

TEMPERATURE COEFFICIENT:	+ 22% - 56% , +10 to +85°C
DISSIPATION FACTOR:	For ≥ 25 Volts: 4.0% max For 16 Volts: 5.0% max
AGING:	5% / decade hour
INSULATION RESISTANCE:	100 ΩF or 10 GΩ,whichever is less @ 25°C,WVDC;
DIELECTRIC STRENGTH:	2.5 X WVDC Min., 25°C, 50 mA max
TEST PARAMETERS:	1kHz ±50Hz, 0.5±0.2 VRMS, 25°C

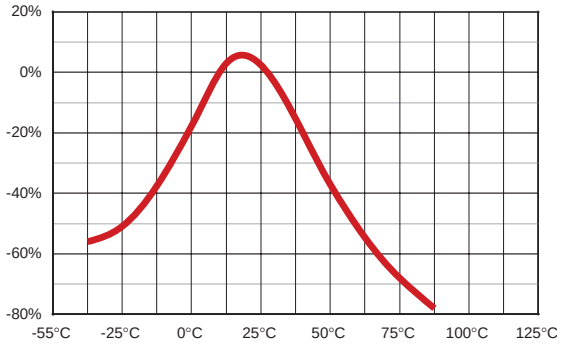
Z5U Cap. vs Temperature



Y5V Dielectric Characteristics

TEMPERATURE COEFFICIENT:	+ 22% - 82% , -30 to +85°C
DISSIPATION FACTOR:	For 25 Volts: 5.0% max For 16 Volts: 7.0% max For 10 Volts: 9.0% max
AGING:	7% / decade hour
INSULATION RESISTANCE:	100 ΩF or 10 GΩ,whichever is less @ 25°C,WVDC;
DIELECTRIC STRENGTH:	2.5 X WVDC Min., 25°C, 50 mA max
TEST PARAMETERS:	1kHz ±50Hz, 1.0±0.2 VRMS, 25°C

Y5V Cap. vs Temperature



How to Order

500	R15	N	101	J	V	4	T
VOLTAGE	CASE SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	MARKING	PACKAGING

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
402 = 4000 V
502 = 5000 V

R07=0402
R14=0603
R15=0805
R18=1206
S41=1210
R29=1808
S43=1812
S47=2220
S49=1825
S48=2225
S54=3640

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 size 0402

Code	Tape Type	Reel Size
U	Embossed	13"
R	Punched	13"
E	Embossed	7"
T	Punched	7"

None = Bulk Packaging
Tape specifications conform to EIA RS481

Part number written: 500R15N101JV4T