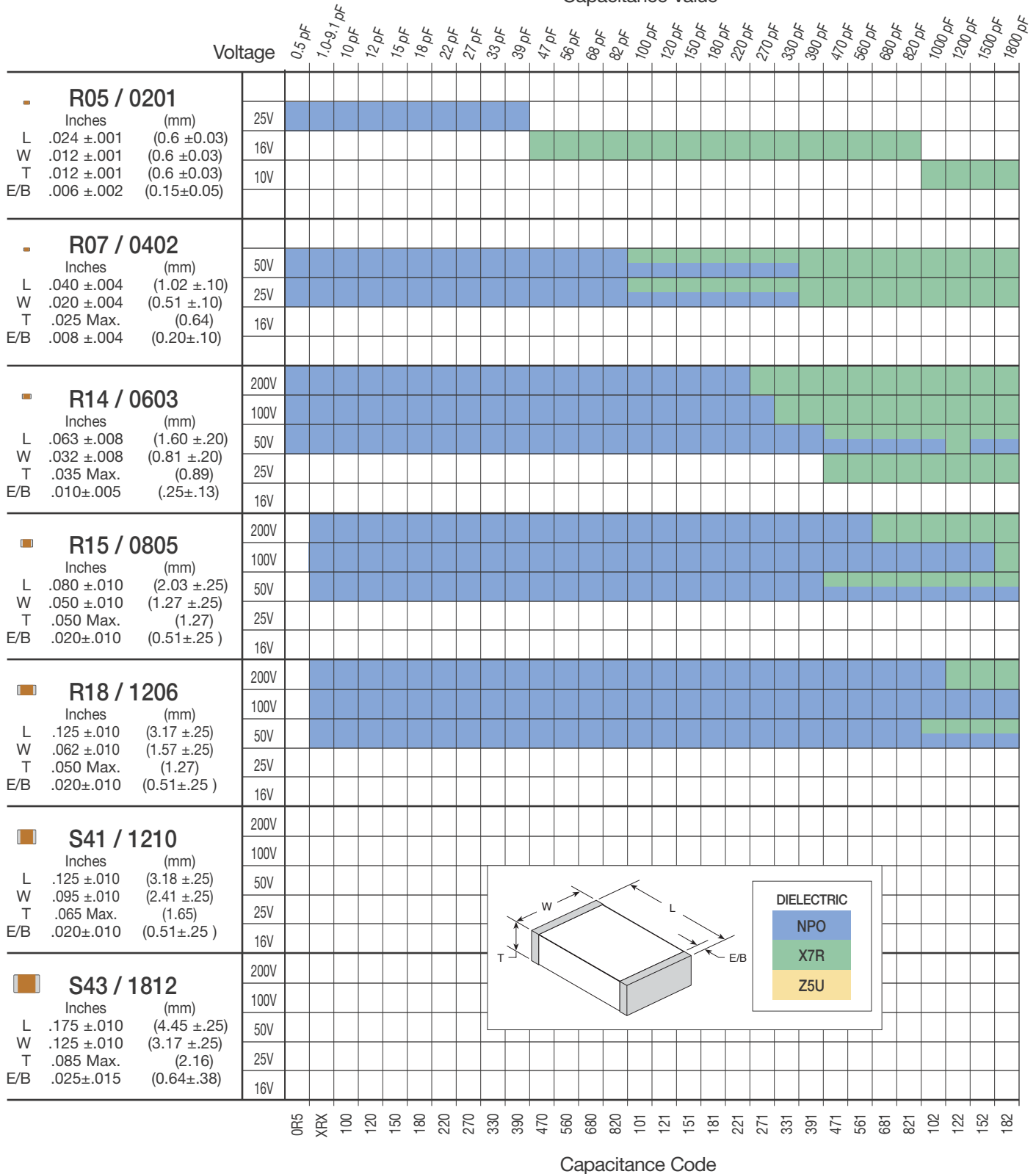


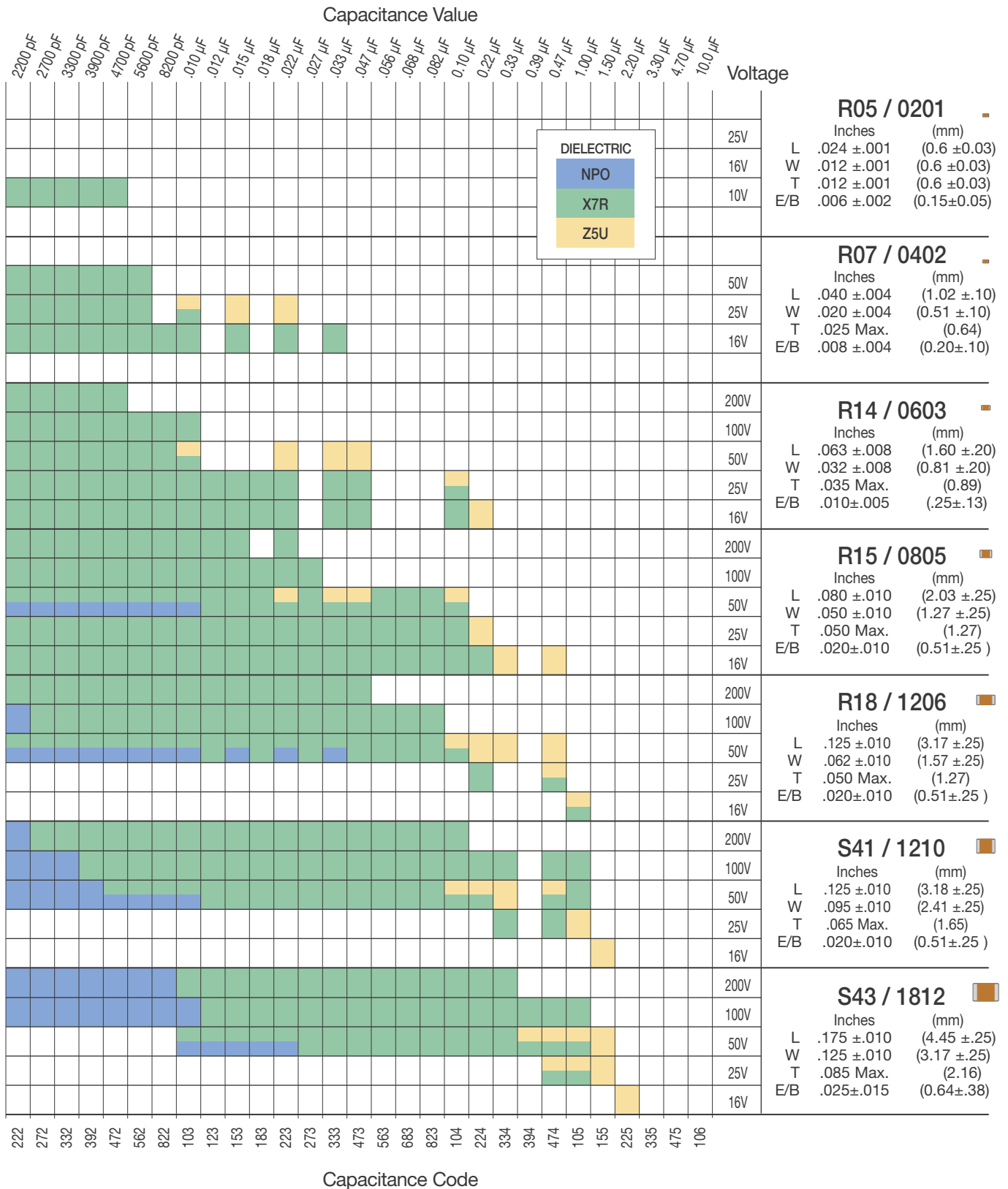
# SURFACE MOUNT MLCCs 16 - 200 VDC

Capacitance Value



Dielectric specifications and part number breakdown may be found on pages 20 & 21.

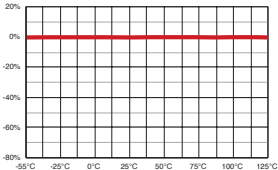
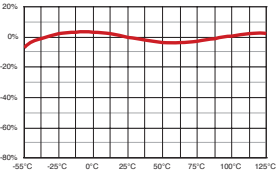
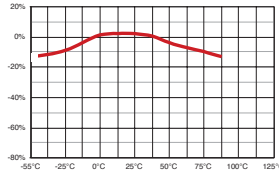
# SURFACE MOUNT MLCCs 16 - 200 VDC

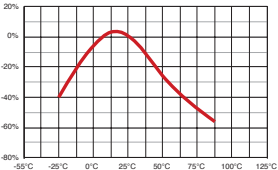
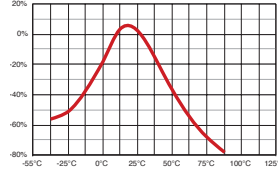


Dielectric specifications and part number breakdown may be found on pages 20 & 21.



# ELECTRICAL CHARACTERISTICS

PARAMETER	NPO		X7R		X5R	
TEMPERATURE COEFFICIENT:	0± 30 ppm/°C	-55 to +125°C	± 15%	-55 to +125°C	± 15%	-55 to +85°C
						
DISSIPATION FACTOR:	.001 (0.1%) max		For Vrated ≥ 50 VDC, DF = 2.5% max For Vrated = 125 VDC, DF = 3.0% max For Vrated = 116 VDC, DF = 3.5% max		For Vrated = 25 VDC, DF = 3.0% max For Vrated = 16 VDC, DF = 3.5% max For Vrated = 10 VDC, DF = 5.0% max	
AGING:	None		2.5% / decade hour			
INSULATION RESISTANCE:	IR @ 25°C, WVDC = 1000ΩF or 100GΩ whichever is less <sup>1</sup> IR @ 125°C, WVDC = 10% of 25°C rating				IR @ 25°C, WVDC = 1000ΩF or 100GΩ whichever is less <sup>2</sup>	
DIELECTRIC STRENGTH:	For Vrated = 6 - 200 VDC, DWV = 2.5 X WVDC, 25°C, 50mA max. For Vrated = 201 - 499 VDC, DWV = 2.0 X WVDC, 25°C, 50mA max. For Vrated = 500 - 999 VDC, DWV = 1.5 X WVDC, 25°C, 50mA max. For Vrated = 1000+ VDC, DWV = 1.2 X WVDC, 25°C, 50mA max.				DWV = 2.5 X WVDC, 25°C, 50mA max.	
TEST PARAMETERS:	C > 100 pF; 1kHz ±50Hz; 1.0±0.2 VRMS C ≤ 100 pF 1Mhz ±50kHz; 1.0±0.2 VRMS		1kHz ±50Hz; 1.0±0.2 VRMS		1kHz ±50Hz; 1.0±0.2 VRMS	
NOTES:			1) Tanceram X7R IR = 500 ΩF or 10 GΩ,		2) Tanceram X5R IR = 500 ΩF or 10 GΩ	

PARAMETER	Z5U		X7R	
TEMPERATURE COEFFICIENT:	+22% -56%	+10 to +85°C	+22% -82%	-30 to +85°C
				
DISSIPATION FACTOR:	For Vrated ≥ 25 VDC, DF = 4.0 % max For Vrated = 16 VDC, DF = 5.0 % max		For Vrated = 25 VDC, DF = 5.0% max For Vrated = 16 VDC, DF = 7.0% max For Vrated = 10 VDC, DF = 9.0% max	
AGING:	5.0 % / decade hour		7.0% / decade hour	
INSULATION RESISTANCE:	IR @ 25°C, WVDC = 100ΩF or 10GΩ whichever is less			
DIELECTRIC STRENGTH:	DWV = 2.5 X WVDC, 25°C, 50mA max.			
TEST PARAMETERS:	1kHz ±50Hz; 0.5±0.2 VRMS		1kHz ±50Hz; 1.0±0.2 VRMS	
NOTES:				

# PART NUMBER BREAKDOWN

500	R15	N	101	J	V	4	T
VOLTAGE	CASE SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	MARKING	PACKAGING
100 = 10 V	R05=0201	N = NPO	1st two digits are significant; third digit denotes number of zeros, R = decimal.	* B = ± 0.10 pF	V = Nickel Barrier with 100% Tin Plating (Matte)	4 = Unmarked	Tape Code
160 = 16 V	R07=0402	W = X7R		* C = ± 0.25 pF		6 = EIA "J" Code*	Tape Type
250 = 25 V	A11=0405	X = X5R		* D = ± 0.50 pF		*Not available on sizes ≥ 0402	Reel Size
500 = 50 V	R14=0603	Z = Z5U		F = ± 1 %			U Embossed 13"
101 = 100 V	R15=0805	Y = Y5V	1R0 = 1.0 pF	G = ± 2%			R Punched 13"
201 = 200 V	A18=0612		100 = 10 pF	J = ± 5%			E Embossed 7"
251 = 250 V	R18=1206		102 = 1,000 pF	K = ± 10%			T Punched 7"
301 = 300 V	S41=1210		474 = 0.47 μF	M = ± 20%			None = Bulk Packaging
501 = 500 V	R29=1808			Z = +80 -20%			Size 0201-1206 tape standard is Code "T"
631 = 630 V	S43=1812			*Values < 10 pF only			Tape specifications conform to EIA RS481
102 = 1000 V	S47=2220						
202 = 2000 V	S49=1825						
302 = 3000 V	S48=2225						
402 = 4000 V							
502 = 5000 V							

Part number written: 500R15N101JV4T

PLEASE NOTE: Not all combinations of JDI P/Ns are valid. Please refer to the appropriate "How to Order" section for a particular product or contact your Sales Representative if you need assistance.

