



# SMT-Z5U-Y5V DIELECTRICS



General purpose EIA Class III dielectrics with +22% to -56% (Z5U) and +22% -82% (Y5V) temperature coefficients and very high capacitance density. The NOVACAP Z5U and Y5V formulations are very stable with time, typically aging less than 2% per decade. General purpose chips are used in by-pass and decoupling functions and other applications where capacitance change over the operating temperature range is not critical.

## ➔ CAPACITANCE & VOLTAGE SELECTION FOR POPULAR CHIP SIZES

3 digit code: two significant digits, followed by number of zeros eg: 473 = 47,000 pF

### Z5U DIELECTRIC

SIZE	0402	0504	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
Min Cap	121	121	121	391	561	561	561	182	272	822	822	822
16V	333	184	154	684	824	155	335	395	565	106	156	106
25V	273	154	104	474	684	125	225	335	475	106	126	106
50V	183	104	683	334	474	105	185	225	395	825	106	825
100V	472	393	273	124	184	274	564	684	125	225	335	225
200V	152	103	562	333	393	823	184	224	394	824	125	105
250V	102	682	472	223	333	563	124	154	224	684	824	684

MAX CAP & VOLTAGE

### Y5V DIELECTRIC

SIZE	0402	0504	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
Min Cap	121	121	121	471	681	681	681	222	332	103	103	103
16V	393	224	184	824	105	185	395	475	685	126	126	186
25V	333	184	124	564	824	155	275	395	565	126	126	156
50V	223	124	823	394	564	125	225	275	475	106	106	126
100V	562	473	333	154	224	334	684	824	155	275	275	395
200V	182	123	682	393	473	104	224	274	474	105	125	155
250V	122	822	562	273	393	683	154	184	274	824	824	105

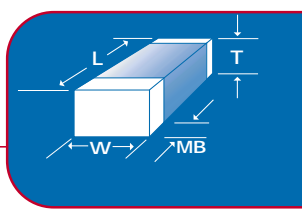
MAX CAP & VOLTAGE



## PRODUCT OFFERING



See chart for standard EIA case sizes and available capacitance and voltage ratings. The low aging rate of the Novacap dielectrics permits the manufacture of Z5U and Y5V chips with K (+/-10%) capacitance tolerance, as well as the M, Z and P tolerance offerings. Special sizes, thickness and other voltage ratings are available, see other NOVACAP product offerings. Please consult the factory with your requirements.



### → DIMENSIONS +/- INCHES (MM)

SIZE	0402	0504	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
LENGTH L	.040 (1.02)	.050 (1.27)	.060 (1.52)	.080 (2.03)	.100 (2.54)	.125 (3.18)	.125 (3.18)	.180 (4.57)	.180 (4.57)	.180 (4.57)	.220 (5.59)	.220 (5.59)
WIDTH W	.020 (.508)	.040 (1.02)	.030 (.760)	.050 (1.27)	.050 (1.27)	.060 (1.52)	.100 (2.54)	.080 (2.03)	.125 (3.18)	.250 (6.35)	.210 (5.33)	.250 (6.35)
T MAX.	.024 (.610)	.044 (1.12)	.035 (.889)	.054 (1.37)	.054 (1.37)	.064 (1.63)	.065 (1.65)	.065 (1.65)	.065 (1.65)	.080 (2.03)	.080 (2.03)	.080 (2.03)
MB	.010 (.254)	.014 (.355)	.014 (.355)	.020 (.508)	.020 (.508)	.020 (.508)	.020 (.508)	.024 (.610)	.024 (.610)	.024 (.610)	.030 (.760)	.030 (.760)

### → TOLERANCES +/- INCHES (MM)

LENGTH	.004 (.102)	.006 (.152)	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.012 (.305)	.012 (.305)	.012 (.305)	.015 (.380)	.015 (.380)
WIDTH	.004 (.102)	.006 (.152)	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.015 (.380)	.015 (.380)	.015 (.380)
MB	.006 (.152)	.006 (.152)	.006 (.152)	.010 (.254)	.010 (.254)	.010 (.254)	.010 (.254)	.014 (.355)	.014 (.355)	.014 (.355)	.015 (.380)	.015 (.380)

### → HOW TO ORDER

	1206	Y	104	M	250	N	X	T	M
SIZE See Chart									
DIELECTRIC		Z = Z5U Y = Y5V							
CAPACITANCE			Value in Picofarads Two significant figures, followed by number of zeros: 104 = 100,000pF						
TOLERANCE				K = +/- 10% M = +/- 20% Z = +80% -20% P = +100% -0%					
VOLTAGE-VDCW					Two significant figures, followed by number of zeros: 250 = 25V				
TERMINATION						N = Nickel Barrier 90/10 Sn/Pb V = Non solderable Silver			
THICKNESS OPTION							X = Non standard thickness. Specify in Mils if Non EIA thickness is required.		
PACKING OPTION								T = Reeled	
MARKING OPTION									M = Marked (See Marking Specifications)