



X8R HIGH TEMPERATURE SMT 150°C



NOVACAP manufactures X8R, Class II dielectric chip capacitors designed to operate from -55°C to 150°C. Product applications include harsh environments such as oil exploration and Automotive/Avionics engine compartment circuitry. Product is available as surface mount chips in sizes 0805 to 7565. Consult Novacap if your specific requirements exceed our catalog maximums (size, cap. value, and voltage).



CAPACITANCE SELECTION

3 digit code: two significant digits, followed by number of zeros eg: 183 = 18,000 pF

SIZE	0805	1206	1210	1812	1825	2225	4540	7565
LENGTH L	.080 (2.03)	.125 (3.18)	.125 (3.18)	.180 (4.57)	.180 (4.57)	.220 (5.59)	.450 (11.4)	.750 (19.0)
WIDTH W	.050 (1.27)	.060 (1.52)	.100 (2.54)	.125 (3.18)	.250 (6.35)	.250 (6.35)	.400 (10.2)	.650 (16.5)
T MAX.	.054 (1.37)	.064 (1.63)	.065 (1.65)	.065 (1.65)	.080 (2.03)	.080 (2.03)	.300 (7.62)	.400 (10.2)
MB	.020 (.508)	.020 (.508)	.020 (.508)	.024 (.610)	.024 (.610)	.030 (.760)	.040 (1.02)	.040 (1.02)

X8R (150 °C) DIELECTRIC

Min Cap	121	221	331	221	102	102	102	202
25V	473	154	274	564	105	125	475	156
50V	393	104	254	394	564	564	335	106
100V	273	683	154	334	334	334	225	825
250V	123	333	683	124	154	184	185	565
500V	272	682	153	333	473	473	684	275

DIMENSIONAL TOLERANCES +/- INCHES (MM)

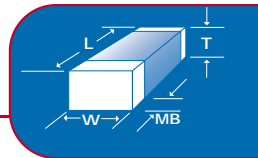
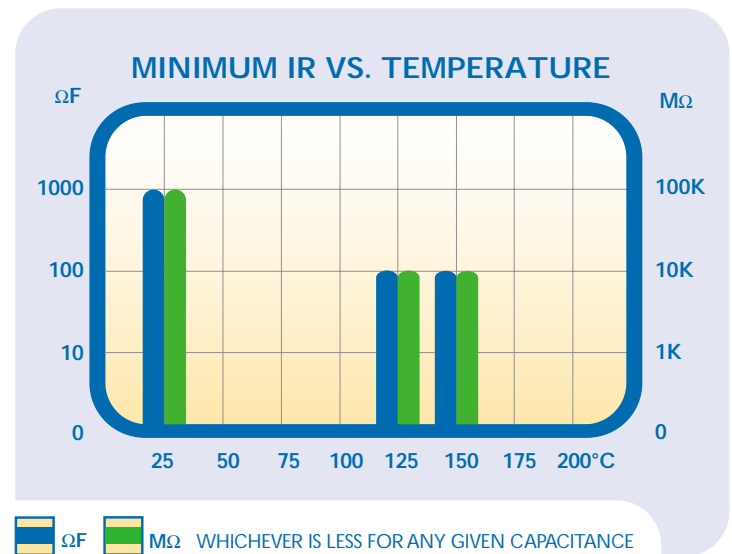
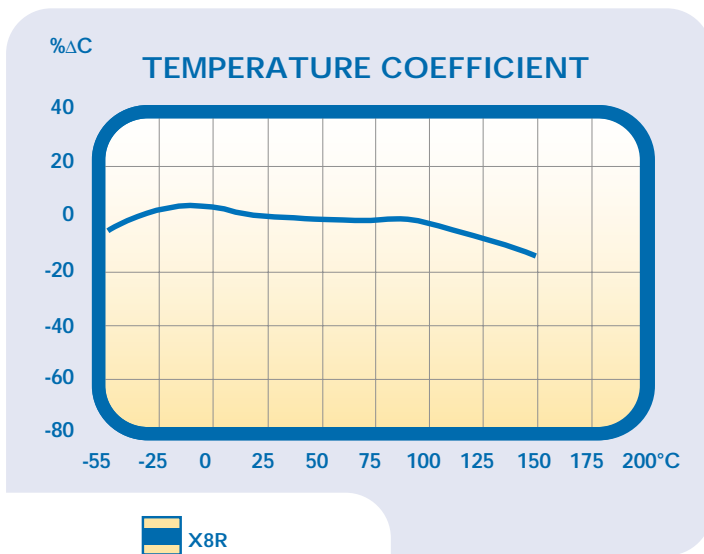
LENGTH L	.008 (.203)	.008 (.203)	.008 (.203)	.012 (.305)	.012 (.305)	.015 (.380)	.023 (.584)	.038 (.965)
WIDTH W	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.015 (.380)	.015 (.380)	.020 (.508)	.033 (.838)
MB	.010 (.254)	.010 (.254)	.010 (.254)	.014 (.355)	.014 (.355)	.015 (.380)	.020 (.508)	.020 (.508)

MAX CAP @ VOLTAGE

CHARACTERISTICS

X8R DIELECTRIC

OPERATING TEMPERATURE RANGE:	-55°C to 150°C
TEMPERATURE COEFFICIENT UP TO 150°C:	+/- 15% ΔC Max
DISSIPATION FACTOR @ 25°C:	.025 (2.5%) Max
INSULATION RESISTANCE, 25°C 125°C	>100GΩ or >1000ΩF >10GΩ or >100ΩF
DIELECTRIC WITHSTANDING VOLTAGE: * WHICHEVER IS GREATER	< 200V, 250% 201-500V, 150% or 500V* > 500V, 120%, or 750V*
AGING RATE:	< 2.0% per decade
TEST PARAMETERS:	1KHz, 1.0 +/- 0.2 VRMS, 25°C



HOW TO ORDER

1210	S	104	M	250	P	X	H	T	M
SIZE See Chart	DIELECTRIC S = 150°C X8R	CAPACITANCE Value in Picofarads Two significant figures, followed by number of zeros: 104 = 100,000pF	TOLERANCE J = 5% K = 10 % M = 20 %	VOLTAGE-VDCW Two significant figures, followed by number of zeros: 250 = 25V	TERMINATION N = Nickel Barrier (100% Sn) P = Palladium Silver Y = Nickel Barrier (90Sn/10Pb)	THICKNESS OPTION X = Non-standard thickness. Specify in Mils if non-standard is required. Standard items are any thickness to Max shown in charts.	HI REL TESTING OPTION	PACKING OPTION T = Reeled	MARKING OPTION M = Marked (See Marking Specifications)