



160°C HIGH TEMPERATURE SMT



NOVACAP manufactures chip capacitors designed to operate from -55°C to 160°C. Product application include harsh environments such as automotive/avionic engine compartment circuitry and oil exploration. Consult Novacap if your specific requirements exceed our catalog maximums (size, cap. value, and voltage). Also available is radial leaded and encapsulation styles, see our Leaded High Temperature pages.



CAPACITANCE SELECTION

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

MAX CAP @ VOLTA GE

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)	.300 (7.62)
MB	.020 (.508)	.020 (.508)	.020 (.508)	.024 (.610)	.024 (.610)	.030 (.760)	.040 (1.02)	.040 (1.02)

"F" (160°C) - NP0 DIELECTRIC

Min Cap	0R5	1R0	5R0	220	560	680	221	102
25V	272	562	123	223	563	563	184	394
50V	182	392	822	153	393	473	154	334
100V	681	182	332	822	153	183	104	274
250V	471	102	222	562	123	183	563	154
500V	181	391	821	222	392	562	273	683

"G" (160°C) - CLASS II DIELECTRIC

Min Cap	121	221	331	221	102	102	102	202
25V	823	224	394	684	155	185	565	186
50V	473	124	224	474	105	125	475	156
100V	183	473	104	154	474	474	335	126
250V	472	103	273	473	124	154	125	395
500V	102	222	562	103	273	333	334	824

DIMENSIONAL TOLERANCES +/- INCHES (MM)

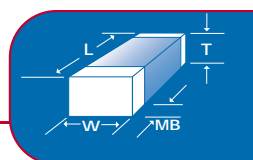
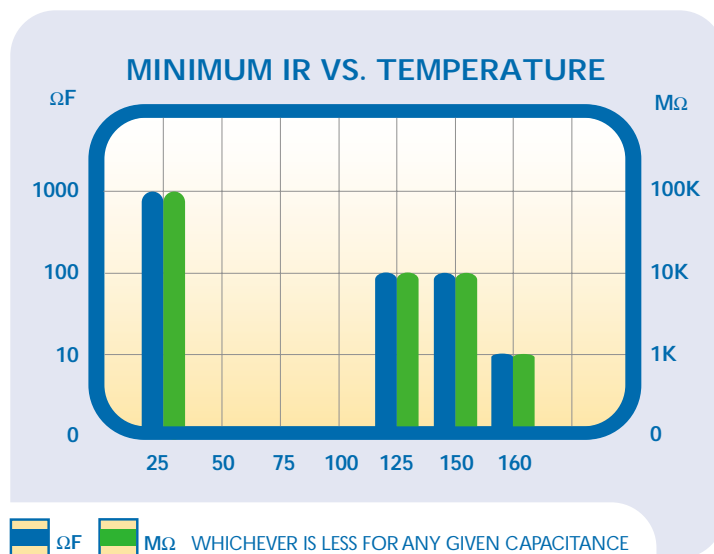
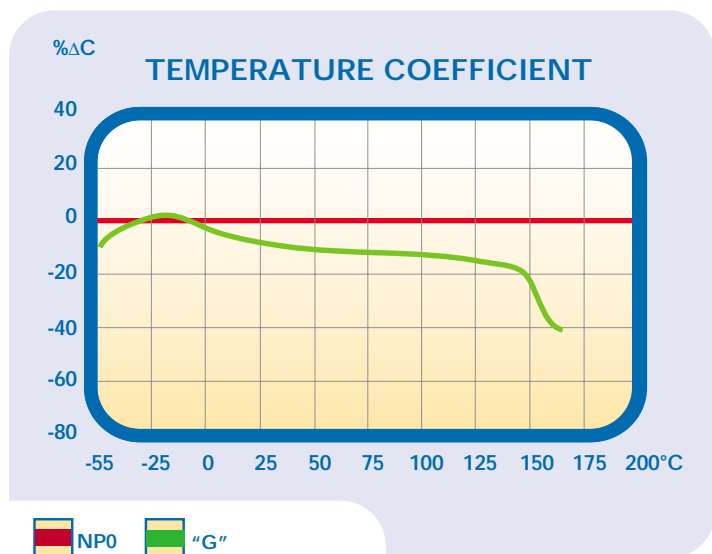
LENGTH L	.008 (.203)	.008 (.203)	.008 (.203)	.012 (.305)	.012 (.305)	.015 (.380)	.023 (.584)	.038 (.965)
WIDTH W	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.015 (.380)	.015 (.380)	.020 (.508)	.033 (.838)
MB	.010 (.254)	.010 (.254)	.010 (.254)	.014 (.355)	.014 (.355)	.015 (.380)	.020 (.508)	.020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

Rev. 04/04



CHARACTERISTICS

	"F" NP0 Dielectric	"G" Class II Dielectric
OPERATING TEMPERATURE RANGE:	-55°C to 160°C	-55°C to 160°C
TEMPERATURE COEFFICIENT UP TO 160°C:	0 +/- 30 ppm/°C	+15 -40% ΔC Max
DISSIPATION FACTOR @ 25°C:	.001 (0.1%) Max	.025 (2.5%) Max
INSULATION RESISTANCE, 25°C 125°C	> 100G Ω or >1000Ω F > 10GΩ or >100Ω F	> 100G Ω or >1000Ω F > 10GΩ or >100Ω F
DIELECTRIC WITHSTANDING VOLTAGE: * WHICHEVER IS GREATER	< 200V, 250% 201-500V, 150% or 500V* > 500V, 120%, or 750V*	< 200V, 250% 201-500V, 150% or 500V* > 500V, 120%, or 750V*
AGING RATE:	0% per decade	2% per decade
TEST PARAMETERS:	1KHZ, 1.0 +/- 0.2 VRMS, 25°C 1MHZ for Capacitance <100pF	1KHZ, 1.0 +/- 0.2 VRMS, 25°C



HOW TO ORDER

1210	F	104	M	250	P	X	H	T	M
SIZE See Chart	DIELECTRIC F = 160°C NP0 G = 160°C (Class II)	CAPACITANCE Value in Picofarads Two significant figures, followed by number of zeros: 104 = 100,000pF	TOLERANCE F = 1% G = 2% NP0 only 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)

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