

# NOVACAP

A DOVER COMPANY

## 1. SCOPE

Novacap offers a line of **High Temperature , High Dielectric Constant, Stable Capacitors** using a dielectric formulation designed for reliable operation at temperatures up to 200°C.

All parts are tested to Novacap **High Reliability** burn-in screening tests at 200°C for elimination of early failures and to enhance operational reliability.

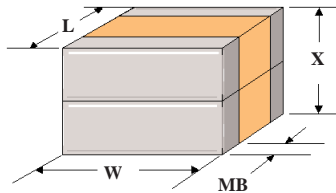
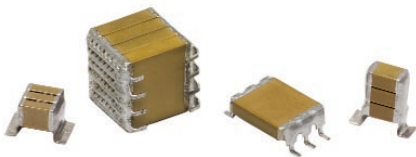
With exceptionally, **Low ESR**, this product line exhibits low self-heating in power supply filtering applications.

Ideal for **High Reliability** operation in oil exploration tooling(down hole), automotive and avionics high temperature compartments. Voltages available from 50 volts to 5000 volts. Consult factory for other sizes and voltage ratings.

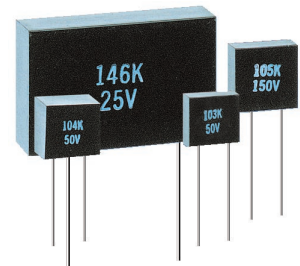
## 2. DIELECTRIC CHARACTERISTICS

Operating Temperature Range:	-55°C to +200°C
Temperature Coefficient:	-2200 ppm/°C +/- 250 ppm/°C
Dissipation Factor:	0.1% Max. @ 25°C
Insulation Resistance, 25°C	100 Giga-Ohms or 1000 Ohm-Farads, whichever is less
Insulation Resistance, 200°C	10 Giga-Ohms or 100 Ohm-Farads, whichever is less
Dielectric Withstanding Voltage:	250% Rated VDC
Aging Rate:	0% per decade
Test Parameters:	1KHz, 1.0 Volts +/- 0.2 Vrms

## 3. PHYSICAL DIMENSIONS (NOT SCALED)



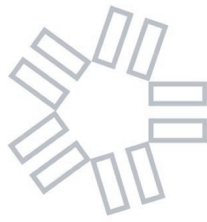
Typical Stacked Capacitor



Dimensions	L	W	X	MB
Inches (mm)	.360 (9.14)	.400 (10.2)	.250 (6.35)	.030 (.762)
+/- in (mm)	.018 (.457)	.020 (.508)	MAX.	.015 (.381)

HOW TO ORDER

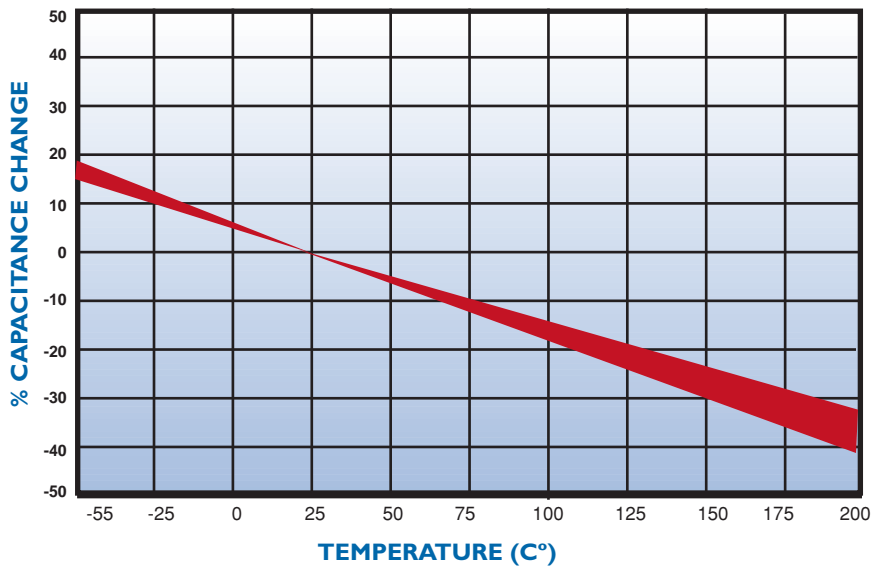
3640	R	104	K	102	P	X	T
<b>SIZE</b> 1825 2520 3040 3640 4040 7565 Add'tl sizes available	<b>DIELECTRIC</b> R = R2D	<b>CAPACITANCE</b> Value in Picofarads Two significant figures, followed by number of zeros: 104 = 100,000 pF	<b>TOLERANCE</b> J = +/- 5% K = +/- 10% M = +/- 20% Z = +80%-20% P = +100%-0%	<b>VOLTAGE-VDCW</b> Two significant figures, followed by number of zeros: 102 = 1000V	<b>TERMINATION</b> P = Palladium Silver	<b>THICKNESS OPTION</b> X = Non-standard thickness. Specify in Mils. if non-standard is required. Standard items are any thickness to Maximum shown in charts.	<b>PACKING OPTION</b> T = Reeled



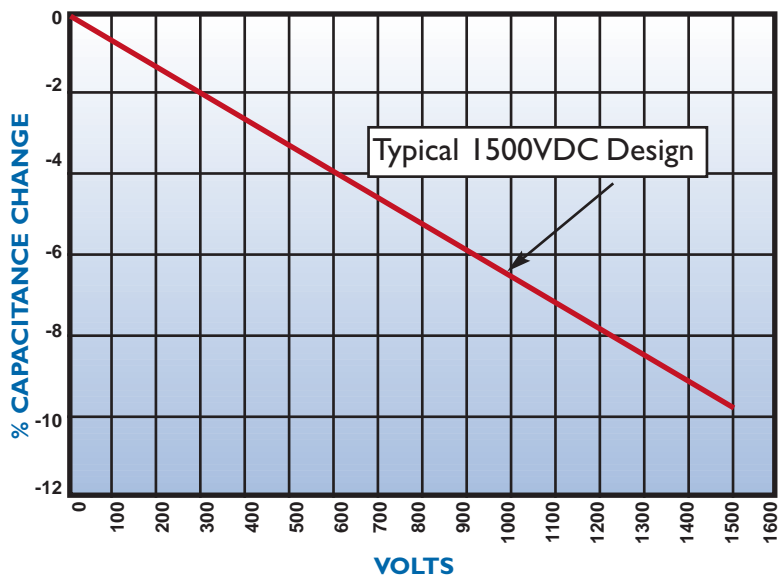
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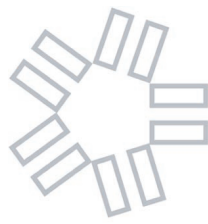
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## TEMPERATURE COEFFICIENT



## VOLTAGE COEFFICIENT

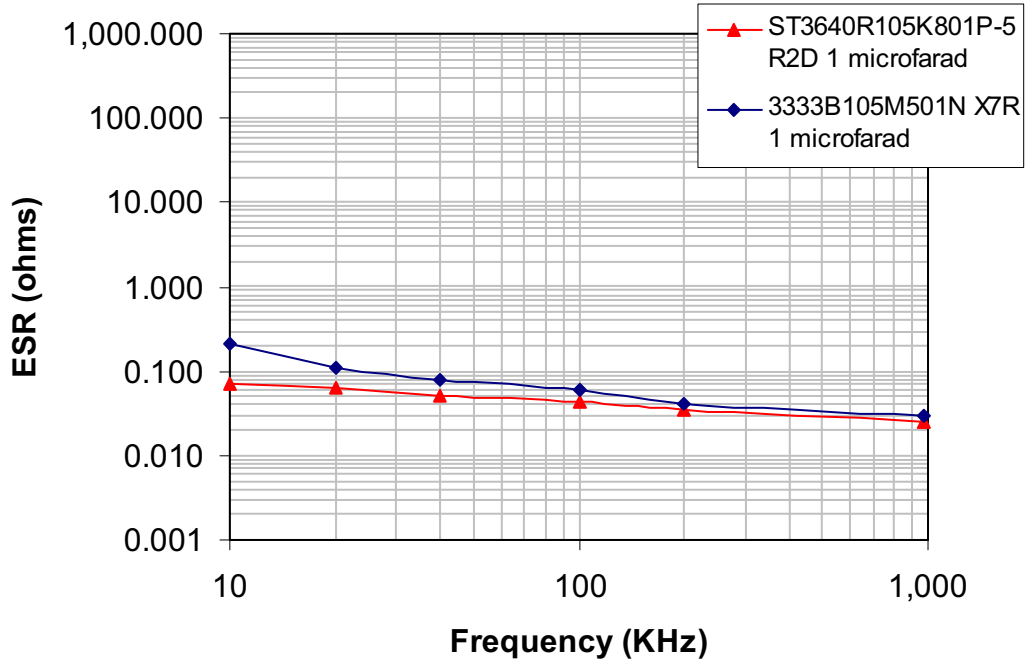




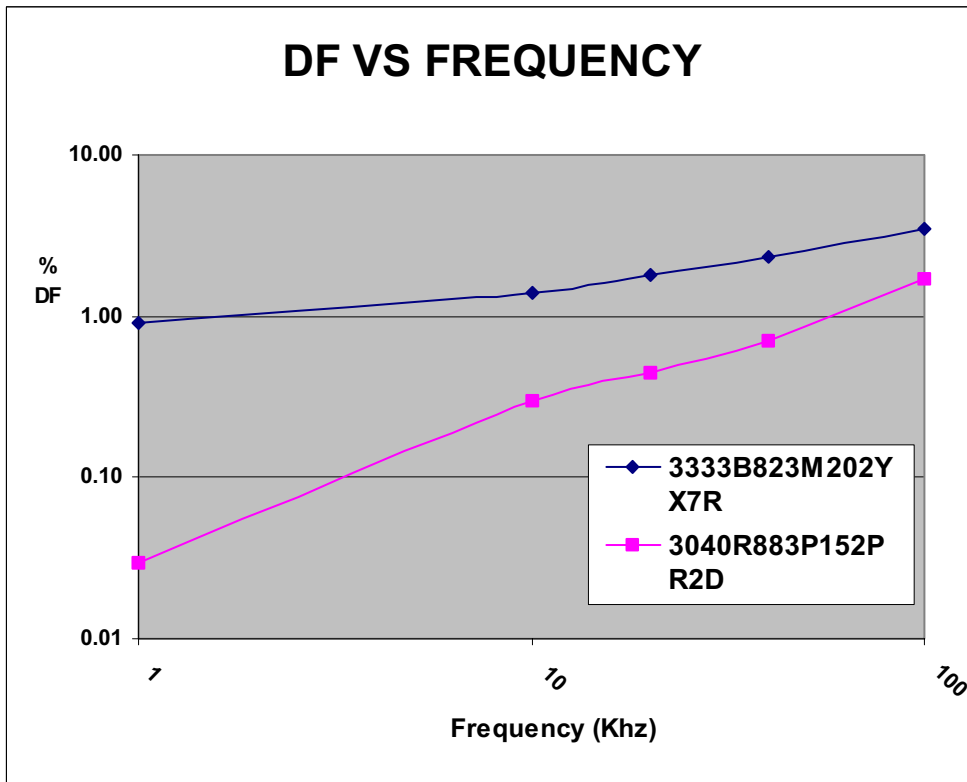
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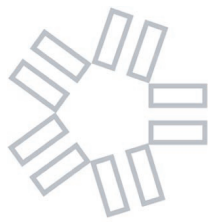
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## ESR versus Frequency



## DF VS FREQUENCY





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## Q versus Frequency

