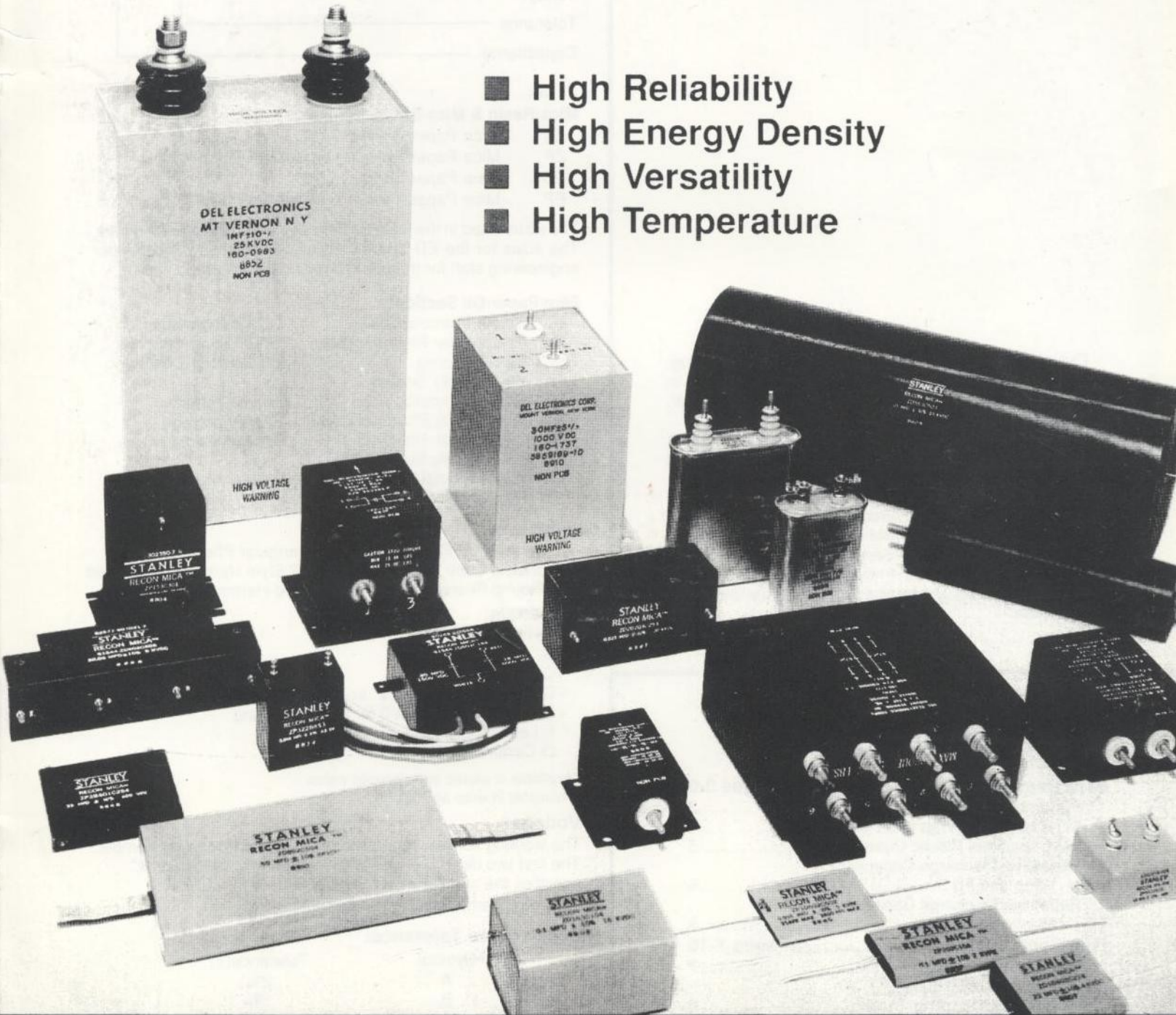


HIGH VOLTAGE CAPACITORS

- High Reliability
- High Energy Density
- High Versatility
- High Temperature



STANLEY ELECTRONICS

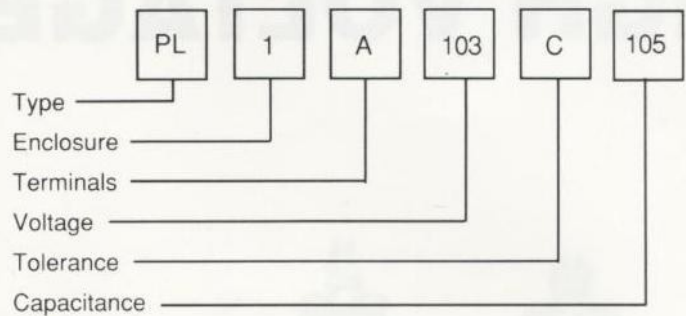
A DIVISION OF RFI CORPORATION, 100 PINE AIRE DRIVE, BAYSHORE, L.I. NY 11706

TEL: 516 231-6400

FAX: 516 231-6465

High Voltage Capacitors

Ordering Information



Type:

Mica/Resin & Mica/Epoxy Section:

ZD	Mica Paper/Resin	DC
ZP	Mica Paper/Resin	Repetitive Pulse
ED	Mica Paper/Epoxy	DC
EP	Mica Paper/Epoxy	Repetitive Pulse

The sizes listed in the Mica Section are for the ZD and ZP styles. The sizes for the ED and EP styles are smaller. Contact our engineering staff for the corresponding dimensions.

Film/Paper/Oil Section:

PL	Round Phenolic Tube	DC Filtering-Coupling
RL	Rectangular Phenolic Tube	DC Filtering-Coupling
SL	Metal Housing: Hermetically Sealed	DC Filtering-Coupling
PR	Round Phenolic Tube	Energy Storage
RR	Rectangular Phenolic Tube	Energy Storage
SR	CP72 Metal Housing: Hermetically Sealed	Energy Storage
ER	Welded Metal Housing: Hermetically Sealed	Energy Storage

Enclosure:

- | | |
|------------------------|-----------------------------------|
| 1. Wrap and Fill | 4. Rectangular Phenolic Tube |
| 2. Plastic Case | 5. CP72 Style Hermetically Sealed |
| 3. Round Phenolic Tube | 6. Welded-Hermetically Sealed |

Terminals:

- * A-Inserts:
- B-Turrets
- C-Screws:
- + D-Pigtails: 040 Dia x 2" Long Solder Coated Copper
- + E-Tabs: 010 Thick x 0.50 Wide x 2" Long
- * F-Leads: Insulated, Flexible 12" Long
- G-Ceramic-Solder Seal

*Available in plastic and phenolic cases

+Available in wrap and fill only

Voltage:

The working voltage expressed in volts by a three digit number. The first two digits are significant figures and the last digit specifies the number of zeros to follow:

Example: 103=10,000 Volts = 10KV

Capacitance Tolerance:

Symbol	Tolerance(±)
A	2%
B	5%
C	10%
D	20%

Capacitance:

The nominal capacitance value expressed in picofarads (pf) is identified by a three-digit number. The first two digits are significant figures and the last digit specifies the number of zeros to follow:

Example: 503=50,000 picofarad=0.05MFD

Our standard product lines are listed in this catalog. However, Stanley engineers are available to assist in design and application problems for military, industrial, medical and research equipment.

Stanley Electronics products meet the test requirements of MIL-I-45208. Stanley will provide burn-in, corona and qualification testing when required by specification.

Stanley customers include:

- ATT • Bendix • Hughes Aircraft • General Dynamics • Westinghouse • Northrop • IBM • Raytheon • ITT • Norden • General Electric • RCA • Sanders • UNISYS • Litton • Conrac • DuPont • American Philips • All Branches of the US Government • Major Universities and Laboratories • Plus many others

Table of Contents

Mica Section	Pages 3-6
Performance Curves	3
DC Capacitors Wrap and Fill	4
DC Capacitors Plastic Case	5
Repetitive Discharge Capacitors:	
Wrap and Fill	6
Repetitive Discharge Capacitors:	
Plastic Case	6
Film Section	Pages 7-10
Performance Curves	7
Round Phenolic Tubes:	
Filtering, Coupling, Pulse	8
Rectangular Phenolic Tubes:	
Filtering, Coupling, Pulse	9
Steel Cased Hermetically Sealed:	
Filtering, Coupling, Pulse	10
CP72-Steel Cased Hermetically Sealed:	
Filtering, Coupling, Pulse	10
Pulse Forming Networks	11

Capacitor Dielectric Selector Chart

Dielectric	Voltage Rating	Service	Temp. Range	Insulation Resistance MΩ X MFD	Types
+ Mylar/Kraft Paper Mineral Oil	1,000 to 100,000	DC Filtering Energy Storage	-55°C to +125°C	10,000	PL, RL, ER, SL, WL
+ Mylar/Kraft Paper Castor Oil	1,000 to 100,000	DC Filtering Energy Storage	-25°C to +125°C	10,000	PL, RL, ER, SL, WL
+ Mylar/Kraft Paper Polybutane	1,000 to 15,000	DC Filtering Energy Storage	-25°C to +105°C	7,500	WL
Recon Mica/Resin * Recon Mica/Epoxy	600 to 100,000	DC Energy Storage Repetitive Pulse	-55°C to +125°C	10,000	ZP, ZD, ED, EP
Polypropylene/Kraft Paper Mineral Oil	150 to 100,000	High Rep. Rate Repetitive Pulse Discharge & Energy Storage	-55°C to +105°C	10,000	PR, RR, SR
Polypropylene/Kraft Paper Castor Oil	1,500 to 100,000	High Rep. Rate Repetitive Pulse Discharge & Energy Storage	-25°C to +105°C	10,000	PR, RR, SR

Recon Mica™ Capacitors: Technical Data

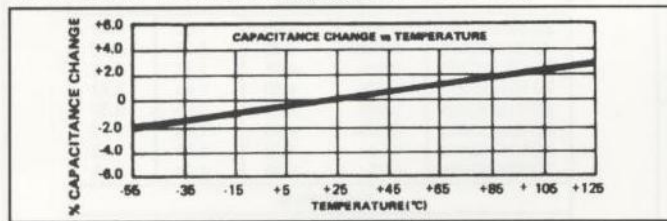
Stanley Recon Mica™ capacitors provide the designer of high voltage electronic and electrical equipment substantial savings in size and weight over the conventional oil-filled, ceramic insulated types. Combining the well-known characteristics of mica and the versatility of polyester resin, Stanley offers the user flexibility in circuit layout utilizing the freedom of shape factor and the absence of encumbering protrusions.

Very low inductance is realizable as a result of the dry construction which eliminates the need for inherently high inductance ceramic insulating bushings. Because there is no oil to leak, Stanley Recon Mica™ capacitors offer the system designer greater reliability than would be encountered when using oil-filled components.

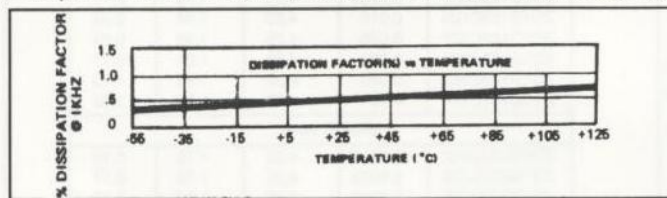
Performance Curves:

Capacitance: (Ref. Mil-STD-202, Method 305)

Test Frequency: 1000 Hz < 1.0 UF Rating, 60 Hz = 1.0 UF Rating

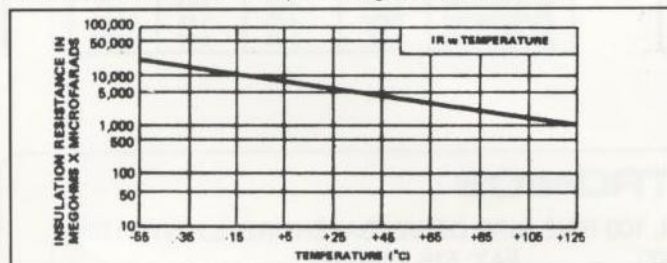


Dissipation Factor: Frequency and equipment same as that for capacitance.



Insulation Resistance: (Ref. Mil-STD-202, Method 302)

Electrification 500 VDC for a time period not greater than 2 minutes.



Features:

- High Energy Densities
- High Corona Resistance
- Low Capacitance Change with Temperature and Frequency
- High Radiation Resistance
- Dry Solid State Package-No Leaks
- No Cumbersome High Voltage Bushings
- Compatible for use in Dielectric Fluids
- Wide Temperature Capability

Applications:

- High Voltage D-C
- Low Inductance Energy Discharge
- Pulse Forming Networks
- D-C Filtering
- By-Pass
- Laser Power Supplies
- Marx Generator
- Power Factor Correction
- Voltage Doubling

Environmental Characteristics:

Operating Temperature:

-65°C to +125°C without derating

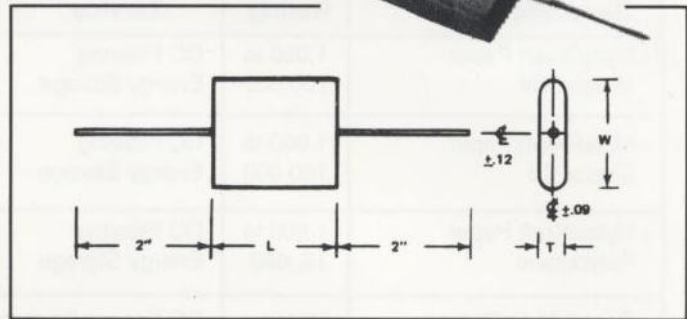
(Higher temperature available upon request)

Applicable Military Specifications:

Meets Life requirements, Vibration and Shock, Moisture Resistance and Temperature Immersion cycling as specified in applicable portions of Mil-C-5, Mil-C-25, Mil-C-19978, Mil-N-23182.

Recon Mica™ : DC Capacitors Wrap and Fill

Stanley Recon Mica™ wrap and fill high voltage D-C capacitors are manufactured under controlled environmental conditions and utilize the very finest of materials. The reconstituted mica paper, aluminum foil, thermosetting resin, polyester thermosetting tape and two-part epoxy end fill are all of the highest quality available providing the user with the reliability he seeks for his equipment. All manufacturing processes are quality controlled by specification, thereby assuring consistency in the end product. These capacitors are ideally suited for power supply filtering, energy storage, voltage doubling and D-C blocking.



Part No.	MFD	L	W	T
1,000 wvdc				
ZD1D102C224	0.22	2.00	1.81	0.19
ZD1D102C254	0.25	2.00	1.84	0.21
ZD1D102C334	0.33	2.00	1.91	0.25
ZD1D102C504	0.50	2.00	1.84	0.39
ZD1D102C105	1.00	2.00	1.84	0.76
ZD1D102C205	2.00	2.00	1.84	1.49
ZD1D102C405	4.00	3.00	1.87	1.73
ZD1D102C605	6.00	3.00	1.87	2.59
ZD1D102C805	8.00	3.00	1.87	3.42
ZD1D102C106	10.00	3.00	1.94	4.15
2,000 wvdc				
ZD1D202C104	0.10	2.00	1.73	0.12
ZD1D202C224	0.22	2.00	1.86	0.22
ZD1D202C254	0.25	2.00	1.90	0.24
ZD1D202C334	0.33	2.00	1.98	0.30
ZD1D202C504	0.50	2.00	1.90	0.46
ZD1D202C105	1.00	2.00	1.90	0.90
ZD1D202C205	2.00	2.00	1.90	1.78
ZD1D202C405	4.00	3.00	1.95	2.09
ZD1D202C605	6.00	3.00	1.95	3.13
3,000 wvdc				
ZD1D302C103	0.010	1.50	1.66	0.07
ZD1D302C223	0.022	1.50	1.71	0.11
ZD1D302C253	0.025	1.50	1.72	0.12
ZD1D302C333	0.033	1.50	1.76	0.14
ZD1D302C503	0.050	1.50	1.82	0.19
ZD1D302C104	0.100	2.00	1.84	0.20
ZD1D302C224	0.22	2.00	2.06	0.36
ZD1D302C254	0.25	2.00	1.89	0.45
ZD1D302C334	0.33	2.00	1.96	0.57
ZD1D302C504	0.50	2.00	1.97	0.84
ZD1D302C105	1.00	3.12	1.92	0.96
ZD1D302C205	2.00	3.12	1.92	1.89
ZD1D302C405	4.00	4.25	2.70	1.89
4,000 wvdc				
ZD1D402C103	0.010	1.50	1.71	0.11
ZD1D402C223	0.022	1.50	1.79	0.17
ZD1D402C253	0.025	1.50	1.82	0.19
ZD1D402C333	0.033	1.50	1.86	0.22
ZD1D402C503	0.050	1.50	1.83	0.38
ZD1D402C104	0.10	2.00	2.01	0.33
ZD1D402C224	0.22	2.00	2.04	0.68
ZD1D402C254	0.25	2.00	2.60	0.65
ZD1D402C334	0.33	2.00	2.04	1.01
ZD1D402C504	0.50	2.00	2.60	1.30
ZD1D402C105	1.00	4.25	1.97	1.08
ZD1D402C205	2.00	4.25	1.97	2.16
5,000 wvdc				
ZD1D502C103	0.010	2.00	1.70	0.10
ZD1D502C223	0.022	2.00	1.79	0.16
ZD1D502C253	0.025	2.00	1.80	0.18
ZD1D502C333	0.033	2.00	1.86	0.22
ZD1D502C503	0.050	2.00	1.80	0.34
ZD1D502C104	0.10	2.00	1.80	0.66
ZD1D502C224	0.22	3.12	1.99	0.61
ZD1D502C254	0.25	3.12	2.04	0.66
ZD1D502C334	0.33	3.12	1.99	0.91
ZD1D502C504	0.50	3.12	2.04	1.30
ZD1D502C105	1.00	3.12	2.04	2.58

Part No.	MFD	L	W	T
6,000 wvdc				
ZD1D602C103	0.010	2.12	1.73	0.13
ZD1D602C253	0.025	2.12	1.86	0.22
ZD1D602C333	0.033	2.12	1.93	0.27
ZD1D602C503	0.050	2.12	1.86	0.42
ZD1D602C104	0.10	2.12	1.86	0.82
ZD1D602C254	0.25	3.12	1.93	1.01
ZD1D602C334	0.33	3.12	2.01	1.25
ZD1D602C504	0.50	4.25	2.01	1.24
ZD1D602C105	1.00	4.25	2.01	2.46
7,500 wvdc				
ZD1D752C103	0.010	4.25	1.68	0.09
ZD1D752C253	0.025	4.25	1.77	0.15
ZD1D752C333	0.033	4.25	1.81	0.18
ZD1D752C503	0.050	4.25	1.90	0.32
ZD1D752C104	0.10	4.25	1.90	0.48
ZD1D752C254	0.25	4.25	1.96	1.09
ZD1D752C334	0.33	4.25	1.92	1.46
ZD1D752C504	0.50	4.25	1.96	2.16
ZD1D752C105	1.00	4.25	1.96	4.29
10,000 wvdc				
ZD1D103C502	0.005	4.25	1.70	0.10
ZD1D103C103	0.010	4.25	1.75	0.14
ZD1D103C253	0.025	4.25	2.00	0.25
ZD1D103C333	0.033	4.25	1.82	0.35
ZD1D103C503	0.050	4.25	2.00	0.48
ZD1D103C104	0.10	4.25	2.00	0.94
ZD1D103C254	0.25	4.25	1.86	2.40
12,500 wvdc				
ZD1D123C252	0.0025	4.25	1.67	0.09
ZD1D123C502	0.0050	4.25	1.72	0.12
ZD1D123C103	0.010	4.25	1.81	0.18
ZD1D123C253	0.025	4.25	1.86	0.41
ZD1D123C333	0.033	4.25	1.92	0.50
ZD1D123C503	0.050	4.25	1.93	0.75
ZD1D123C104	0.10	4.25	1.98	1.42
ZD1D123C254	0.25	4.25	1.99	3.49
15,000 wvdc				
ZD1D153C102	0.0010	4.25	1.66	0.08
ZD1D153C252	0.0025	4.25	1.72	0.12
ZD1D153C502	0.0050	4.25	1.79	0.17
ZD1D153C103	0.010	4.25	1.92	0.26
ZD1D153C253	0.025	4.25	1.98	0.58
ZD1D153C333	0.033	4.25	1.94	0.77
ZD1D153C503	0.050	4.25	1.98	1.13
ZD1D153C104	0.10	4.25	1.91	2.32
20,000 wvdc				
ZD1D203C102	0.0010	4.25	1.70	0.10
ZD1D203C252	0.0025	4.25	1.79	0.17
ZD1D203C502	0.0050	4.25	1.92	0.27
ZD1D203C103	0.010	4.25	1.92	0.50
ZD1D203C253	0.025	4.25	1.99	1.16
ZD1D203C333	0.033	4.25	2.01	1.51
ZD1D203C503	0.050	4.25	1.99	2.30
ZD1D203C104	0.10	5.00	2.50	2.72



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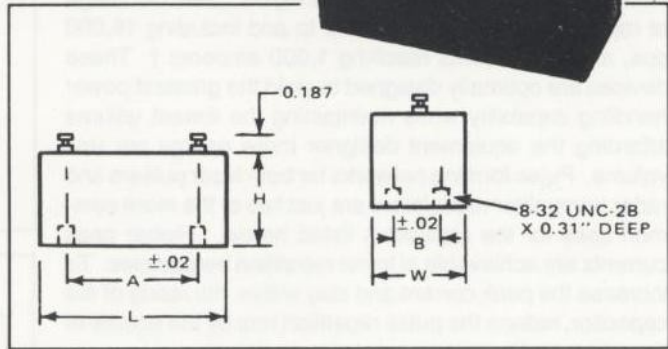
A DIVISION OF RFI CORPORATION, 100 PINE AIRE DRIVE, BAYSHORE, L.I. NY 11706

TEL: 516 231-6400

FAX: 516 231-6465

Recon Mica™ : DC Capacitors Plastic Case

Stanley Recon Mica™ plastic-encased high voltage D-C capacitors are manufactured under controlled environmental conditions and utilize the very finest of materials. The reconstituted mica paper, aluminum foil, thermosetting resin, G-10 grade epoxy fiberglass laminate and two-part epoxy encapsulant are all of the highest quality available providing the user with the reliability he seeks for his equipment. All manufacturing processes are quality controlled by specification, thereby assuring consistency in our end product. These capacitors are ideally suited for power supply filtering, energy storage, voltage doubling, and D-C blocking.



Part No.	MFD	L	W	H	A	B
1,000 wvdc						
ZD2B102C254	0.25	2.12	2.25	0.72	1.62	1.75
ZD2B102C334	0.33	2.12	2.25	0.75	1.62	1.75
ZD2B102C504	0.50	2.12	2.25	0.89	1.62	1.75
ZD2B102C105	1.00	2.12	2.25	1.26	1.62	1.75
ZD2B102C205	2.00	2.12	2.25	1.99	1.62	1.75
ZD2B102C405	4.00	3.25	2.25	2.23	2.75	1.75
ZD2B102C605	6.00	3.25	2.25	3.09	2.75	1.75
ZD2B102C805	8.00	3.25	2.25	3.92	2.75	1.75
ZD2B102C106	10.00	3.25	2.25	4.65	2.75	1.75
2,000 wvdc						
ZD2B202C104	0.10	2.12	2.00	0.72	1.62	1.50
ZD2B202C254	0.25	2.12	2.25	0.74	1.62	1.75
ZD2B202C334	0.33	2.12	2.25	0.80	1.62	1.75
ZD2B202C504	0.50	2.12	2.25	0.96	1.62	1.75
ZD2B202C105	1.00	2.12	2.25	1.40	1.62	1.75
ZD2B202C205	2.00	2.12	2.25	2.28	1.62	1.75
ZD2B202C405	4.00	3.25	2.25	2.59	2.75	1.75
ZD2B202C605	6.00	3.25	2.25	3.63	2.75	1.75
3,000 wvdc						
ZD2B302C103	0.010	1.62	2.00	0.72	1.12	1.50
ZD2B302C253	0.025	1.62	2.00	0.72	1.12	1.50
ZD2B302C333	0.033	1.62	2.25	0.72	1.12	1.75
ZD2B302C503	0.050	1.62	2.25	0.72	1.12	1.75
ZD2B302C104	0.10	2.12	2.25	0.72	1.62	1.75
ZD2B302C254	0.25	2.12	2.25	0.95	1.62	1.75
ZD2B302C334	0.33	2.12	2.25	1.07	1.62	1.75
ZD2B302C504	0.50	2.12	2.25	1.34	1.62	1.75
ZD2B302C105	1.00	3.25	2.25	1.46	2.75	1.75
ZD2B302C205	2.00	3.25	2.25	2.39	2.75	1.75
ZD2B302C405	4.00	4.25	2.25	2.39	3.75	1.75
4,000 wvdc						
ZD2B402C103	0.010	1.62	2.00	0.72	1.12	1.50
ZD2B402C253	0.025	1.62	2.25	0.72	1.12	1.75
ZD2B402C333	0.033	1.62	2.25	0.72	1.12	1.75
ZD2B402C503	0.050	1.62	2.25	0.88	1.12	1.75
ZD2B402C104	0.10	2.12	2.25	0.83	1.62	1.75
ZD2B402C254	0.25	2.12	2.25	1.15	1.62	1.75
ZD2B402C334	0.33	2.12	2.25	1.51	1.62	1.75
ZD2B402C504	0.50	2.12	2.25	1.80	1.62	1.75
ZD2B402C105	1.00	4.25	2.25	1.58	3.75	1.75
ZD2B402C205	2.00	4.25	2.25	2.66	3.75	1.75
5,000 wvdc						
ZD2B502C103	0.010	2.12	2.00	0.72	1.62	1.50
ZD2B502C253	0.025	2.12	2.25	0.72	1.62	1.75
ZD2B502C333	0.033	2.12	2.25	0.72	1.62	1.75
ZD2B502C503	0.050	2.12	2.25	0.84	1.62	1.75
ZD2B502C104	0.10	2.12	2.25	1.16	1.62	1.75
ZD2B502C254	0.25	3.25	2.25	1.16	2.75	1.75
ZD2B502C334	0.33	3.25	2.25	1.41	2.75	1.75
ZD2B502C504	0.50	3.25	2.25	1.80	2.75	1.75
ZD2B502C105	1.00	3.25	2.25	3.18	2.75	1.75

Part No.	MFD	L	W	H	A	B
6,000 wvdc						
ZD2B602C103	0.010	2.12	2.00	0.72	1.62	1.50
ZD2B602C253	0.025	2.12	2.25	0.72	1.62	1.75
ZD2B602C333	0.033	2.12	2.25	0.77	1.62	1.75
ZD2B602C503	0.050	2.12	2.25	0.92	1.62	1.75
ZD2B602C104	0.10	2.12	2.25	1.32	1.62	1.75
ZD2B602C254	0.25	3.25	2.25	1.51	2.75	1.75
ZD2B602C334	0.33	3.25	2.25	1.75	2.75	1.75
ZD2B602C504	0.50	4.25	2.25	1.75	3.75	1.75
ZD2B602C105	1.00	4.25	2.25	2.96	3.75	1.75
7,500 wvdc						
ZD2B752C103	0.010	4.25	2.00	0.72	3.75	1.50
ZD2B752C253	0.025	4.25	2.25	0.72	3.75	1.75
ZD2B752C333	0.033	4.25	2.25	0.72	3.75	1.75
ZD2B752C503	0.050	4.25	2.25	0.75	3.75	1.75
ZD2B752C104	0.10	4.25	2.25	0.98	3.75	1.75
ZD2B752C254	0.25	4.25	2.25	1.60	3.75	1.75
ZD2B752C334	0.33	4.25	2.25	1.96	3.75	1.75
ZD2B752C504	0.50	4.25	2.25	2.66	3.75	1.75
ZD2B752C105	1.00	4.25	2.25	4.80	3.75	1.75
10,000 wvdc						
ZD2B103C502	0.0050	4.25	2.00	0.72	3.75	1.50
ZD2B103C103	0.010	4.25	2.00	0.72	3.75	1.50
ZD2B103C253	0.025	4.25	2.25	0.75	3.75	1.75
ZD2B103C333	0.033	4.25	2.25	0.85	3.75	1.75
ZD2B103C503	0.050	4.25	2.25	0.98	3.75	1.75
ZD2B103C104	0.10	4.25	2.25	1.44	3.75	1.75
ZD2B103C254	0.25	4.25	2.25	2.90	3.75	1.75
12,500 wvdc						
ZD2B123C252	0.0025	4.25	2.00	0.72	3.75	1.50
ZD2B123C502	0.0050	4.25	2.00	0.72	3.75	1.50
ZD2B123C103	0.010	4.25	2.25	0.72	3.75	1.75
ZD2B123C253	0.025	4.25	2.25	0.91	3.75	1.75
ZD2B123C333	0.033	4.25	2.25	1.00	3.75	1.75
ZD2B123C503	0.050	4.25	2.25	1.25	3.75	1.75
ZD2B123C104	0.10	4.25	2.25	1.92	3.75	1.75
ZD2B123C254	0.25	4.25	2.25	3.99	3.75	1.75
15,000 wvdc						
ZD2B153C102	0.0010	4.25	2.00	0.72	3.75	1.50
ZD2B153C252	0.0025	4.25	2.00	0.72	3.75	1.50
ZD2B153C502	0.0050	4.25	2.25	0.72	3.75	1.75
ZD2B153C103	0.010	4.25	2.25	0.76	3.75	1.75
ZD2B153C253	0.025	4.25	2.25	1.08	3.75	1.75
ZD2B153C333	0.033	4.25	2.25	1.27	3.75	1.75
ZD2B153C503	0.050	4.25	2.25	1.63	3.75	1.75
ZD2B153C104	0.10	4.25	2.25	2.82	3.75	1.75
20,000 wvdc						
ZD2B203C102	0.0010	4.25	2.00	0.72	3.75	1.50
ZD2B203C252	0.0025	4.25	2.25	0.72	3.75	1.75
ZD2B203C502	0.0050	4.25	2.25	0.77	3.75	1.75
ZD2B203C103	0.010	4.25	2.25	1.00	3.75	1.75
ZD2B203C253	0.025	4.25	2.25	1.56	3.75	1.75
ZD2B203C333	0.033	4.25	2.25	2.01	3.75	1.75
ZD2B203C503	0.050	4.25	2.25	2.80	3.75	1.75



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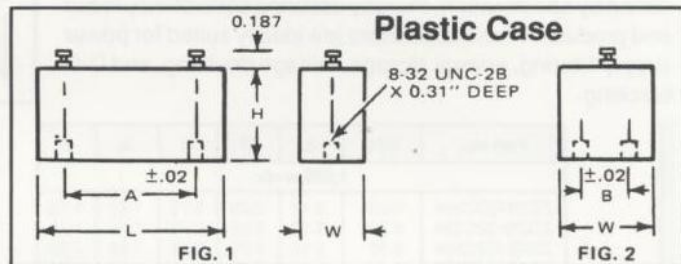
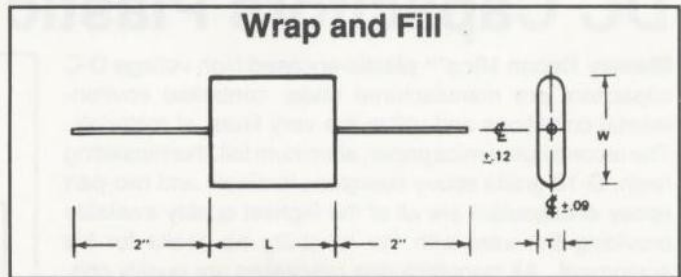
FAX: 516 231-6465

Recon Mica™ : Repetitive Discharge Capacitors

Stanley Recon Mica™ repetitive discharge capacitors are ideally suited for applications requiring complete discharge at repetition rates from 1 pps up to and including 16,000 pps, at peak currents reaching 1,000 amperes.† These devices are optimally designed to yield the greatest power handling capability while maintaining the lowest volume affording the equipment designer more energy per unit volume. Pulse forming networks for both laser pulsers and radar transmitter modulators are just two of the more common uses for the capacitors listed herein. Higher peak currents are achievable at lower repetition frequencies. To increase the peak current and stay within the rating of the capacitor, reduce the pulse repetition rate by the square of the current ratio.

Example: P/N ZP1D601C503 is listed at 15,000 pps at 50 amperes. To increase to 100 amperes reduce the prf to 3750 pps. $15,000 / ((100/50)^2) = 3750$

†Higher repetition frequencies and higher voltages are available upon request. Stanley's engineering staff is ready to assist you.



Wrap and Fill

Part No.	MFD	L	W	T	Max** PRF	Max† I PK
600 V						
ZP1D601C503	0.05	1.75	1.69	0.10	15,000	40
ZP1D601C104	0.10	1.75	1.78	0.16	10,000	40
ZP1D601C254	0.25	2.25	2.21	0.19	5,000	60
ZP1D601C504	0.50	3.25	2.24	0.21	3,500	125
ZP1D601C105	1.0	3.25	2.24	0.42	2,100	400
ZP1D601C205	2.0	3.25	2.24	0.83	1,300	1,000
1,000 V						
ZP1D102C103	0.01	1.50	1.25	0.07	16,000	75
ZP1D102C503	0.05	1.75	1.72	0.11	5,000	80
ZP1D102C104	0.10	1.75	1.81	0.18	3,000	80
ZP1D102C254	0.25	2.25	2.27	0.22	2,000	95
ZP1D102C504	0.50	3.25	2.67	0.23	1,600	160
ZP1D102C105	1.0	3.25	2.67	0.45	1,000	480
ZP1D102C205	2.0	3.25	2.67	0.87	500	1,000
3,000 V						
ZP1D302C501	0.0005	1.25	1.25	0.08	16,000	20
ZP1D302C102	0.0010	1.25	1.30	0.10	16,000	20
ZP1D302C152	0.0015	1.50	1.30	0.10	13,000	40
ZP1D302C252	0.0025	1.75	1.31	0.10	9,000	60
ZP1D302C502	0.005	2.00	1.34	0.13	6,000	60
ZP1D302C103	0.010	2.00	1.78	0.16	3,700	80
ZP1D302C253	0.025	2.00	1.95	0.28	1,800	115
ZP1D302C503	0.05	2.50	2.22	0.37	1,300	500
ZP1D302C104	0.10	4.50	2.21	0.35	1,000	1,000
ZP1D302C254	0.25	4.50	2.25	0.80	500	1,000
5,000 V						
ZP1D502C501	0.0005	1.25	1.27	0.14	12,000	30
ZP1D502C102	0.0010	1.25	1.29	0.18	6,600	30
ZP1D502C152	0.0015	1.75	1.29	0.16	5,800	90
ZP1D502C252	0.0025	2.00	1.30	0.18	4,000	90
ZP1D502C502	0.005	2.50	2.10	0.17	3,800	95
ZP1D502C103	0.010	2.50	2.12	0.25	2,000	250
ZP1D502C253	0.025	4.50	2.15	0.27	1,500	500
ZP1D502C503	0.05	4.50	2.25	0.44	1,000	500
ZP1D502C104	0.10	4.50	2.27	0.85	500	1,000
10,000 V						
ZP1D103C501	0.0005	1.25	1.71	0.35	5,000	40
ZP1D103C102	0.0010	1.25	1.77	0.48	3,000	75
ZP1D103C152	0.0015	1.75	1.74	0.41	2,400	100
ZP1D103C252	0.0025	2.00	2.14	0.43	2,000	320
ZP1D103C502	0.005	3.25	2.24	0.43	1,700	670
ZP1D103C103	0.010	4.50	2.55	0.45	1,200	1,000
ZP1D103C253	0.025	4.50	2.70	0.78	600	1,000
15,000 V						
ZP1D153C501	0.0005	1.50	1.70	0.55	3,000	60
ZP1D153C102	0.0010	1.50	1.75	0.74	1,800	180
ZP1D153C152	0.0015	1.75	1.75	0.72	1,300	320
ZP1D153C252	0.0025	2.00	2.17	0.82	1,100	350
ZP1D153C502	0.005	3.25	2.54	0.75	900	850
ZP1D153C103	0.010	4.50	2.57	0.87	600	1,000

*Amperes

**In pulses per second at 25°C. For higher ambient temperatures reduce average power or provide external cooling or consult Stanley's engineering staff.

Plastic Case

Part No.	MFD	L	W	H	Fig.	A	B	Max** PRF	Max† I PK
600 V									
ZP2B601C503	0.05	2.38	0.38	2.00	1	1.88	-	15,000	40
ZP2B601C104	0.10	2.38	0.44	2.12	1	1.88	-	10,000	40
ZP2B601C254	0.25	2.88	0.44	2.50	1	2.38	-	5,000	60
ZP2B601C504	0.50	3.88	0.50	2.50	1	3.38	-	3,500	125
ZP2B601C105	1.0	3.88	0.68	2.50	1	3.38	-	2,100	400
ZP2B601C205	2.0	3.88	1.12	2.50	2	3.38	0.62	1,300	1,000
1,000 V									
ZP2B102C103	0.01	2.12	0.38	1.50	1	1.62	-	16,000	75
ZP2B102C503	0.05	2.38	0.38	2.00	1	1.88	-	5,000	80
ZP2B102C104	0.10	2.38	0.44	2.12	1	1.88	-	3,000	80
ZP2B102C254	0.25	2.88	0.50	2.62	1	2.38	-	2,000	95
ZP2B102C504	0.50	3.88	0.50	3.00	1	3.38	-	1,600	160
ZP2B102C105	1.0	3.88	1.00	3.00	2	3.38	0.50	1,000	480
ZP2B102C205	2.0	3.88	1.12	3.00	2	3.38	0.62	500	1,000
3,000 V									
ZP2B302C501	0.0005	1.88	0.38	1.50	1	1.38	-	16,000	20
ZP2B302C102	0.0010	1.88	0.38	1.62	1	1.38	-	16,000	20
ZP2B302C152	0.0015	2.12	0.38	1.62	1	1.62	-	13,000	40
ZP2B302C252	0.0025	2.38	0.38	1.62	1	1.88	-	9,000	60
ZP2B302C502	0.005	2.62	0.38	1.62	1	2.12	-	6,000	60
ZP2B302C103	0.010	2.62	0.44	2.00	1	2.12	-	3,700	80
ZP2B302C253	0.025	2.62	0.62	2.25	1	2.12	-	1,800	115
ZP2B302C503	0.05	3.12	0.62	2.50	1	2.62	-	1,300	500
ZP2B302C104	0.10	5.12	0.62	2.50	1	4.62	-	1,000	1,000
ZP2B302C254	0.25	5.12	1.12	2.50	2	4.62	0.62	500	1,000
5,000 V									
ZP2B502C501	0.0005	1.88	0.44	1.62	1	1.38	-	12,000	30
ZP2B502C102	0.0010	1.88	0.44	1.62	1	1.38	-	6,600	30
ZP2B502C152	0.0015	2.38	0.44	1.62	1	1.88	-	5,800	90
ZP2B502C252	0.0025	2.62	0.44	1.62	1	2.12	-	4,000	90
ZP2B502C502	0.005	3.12	0.44	2.38	1	2.62	-	3,800	95
ZP2B502C103	0.010	3.12	0.50	2.38	1	2.62	-	2,000	250
ZP2B502C253	0.025	5.12	0.62	2.50	1	4.62	-	1,500	500
ZP2B502C503	0.05	5.12	0.75	2.50	1	4.62	-	1,000	500
ZP2B502C104	0.10	5.12	1.12	2.62	2	4.62	0.62	500	1,000
10,000 V									
ZP2B103C501	0.0005	1.88	0.62	2.00	1	1.38	-	5,000	40
ZP2B103C102	0.0010	1.88	0.75	2.00	1	1.38	-	3,000	75
ZP2B103C152	0.0015	2.38	0.75	2.00	1	1.88	-	2,400	100
ZP2B103C252	0.0025	2.62	0.75	2.50	1	2.12	-	2,000	320
ZP2B103C502	0.005	3.88	0.88	2.50	1	3.38	-	1,700	670
ZP2B103C103	0.010	5.12	0.75	2.88	1	4.62	-	1,200	1,000
ZP2B103C253	0.025	5.12	1.00	3.00	2	4.62	0.50	600	1,000
15,000 V									
ZP2B153C501	0.0005	2.12	0.88	2.00	1	1.62	-	3,000	60
ZP2B153C102	0.0010	2.12	1.00	2.00	2	1.52	0.50	1,800	180
ZP2B153C152	0.0015	2.38	1.00	2.00	2	1.88	0.50	1,300	320
ZP2B153C252	0.0025	2.62	1.12	2.50	2	2.12	0.62	1,100	350
ZP2B153C502	0.005	3.88	1.00	2.88	2	3.38	0.50	900	850
ZP2B153C103	0.010	5.12	1.12	2.88	2	4.62	0.62	600	1,000



STANLEY ELECTRONICS

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FAX: 516 231-6465

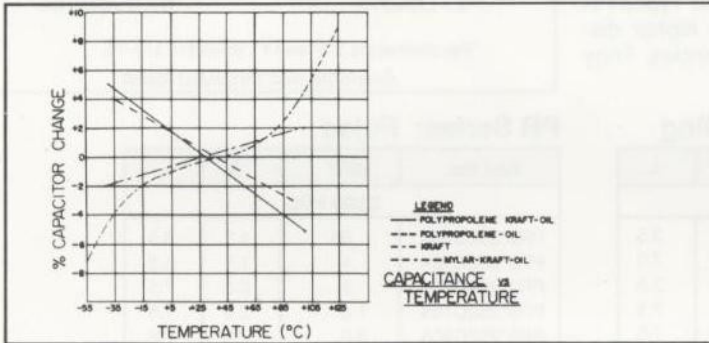
Film Capacitors: Technical Data

Stanley Film Capacitors are designed and manufactured to conform to MIL-C-19978. Large amounts of energy are capable of being stored in moderate volumes because of the high dielectric strength achievable with the use of plastic films and oil. Only the finest films and the purest dielectric fluids are used to assure the greatest reliability and the longest life associated with the best engineering practices. We will be pleased to recommend the proper combinations of dielectric films, kraft paper and dielectric fluids to satisfy the specific parameters of all requirements.

Performance Curves:

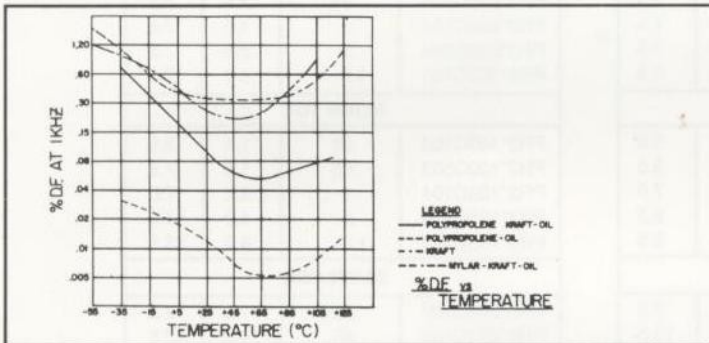
Capacitance: (Ref Mil-Std-202, Method 305)

Test Frequency: 1000 Hz < 1.0 UF Rating, 60 Hz = 1.0 UF Rating



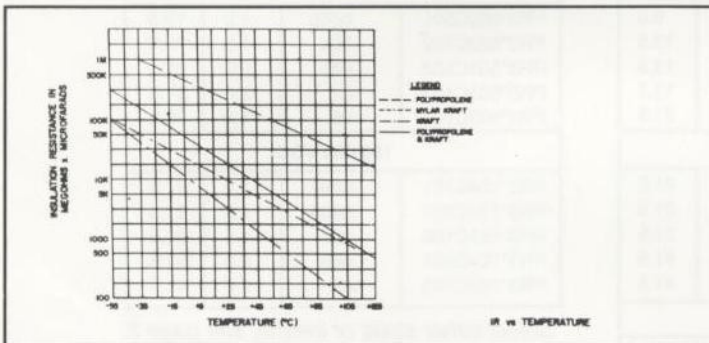
Dissipation Factor:

Frequency and equipment same as that for capacitance.



Insulation Resistance: (Ref. Mil-STD-202, Method 302)

Electrification 500 VDC for a time period not greater than 2 minutes.



Custom Design:

If your requirements for a specific application are not listed within the pages of this catalog **Stanley** can provide custom designs. This represents a large part of our engineering effort. Where size and shape are critical, consult our engineering department for prompt answers to your needs.

Capacitor Parameters:

- Voltage to 200KV
- Current to 200 A RMS, 10,000 A PK
- Frequency DC to 100KHz
- Q to 1,000
- Temperature -55°C to +125°C
- Low ESR
- High IR
- Low Dissipation Factor
- Low Inductance

Applications:

- Power Inverters
- High Frequency
- Lasers
- X-Ray
- MIL-Spec
- Pulse Modulators
- Induction Heating
- Power Supply Filters



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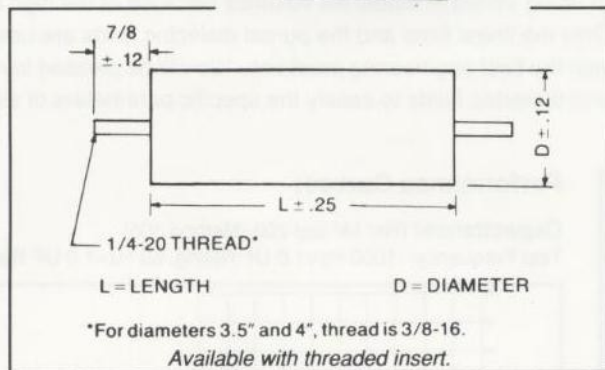
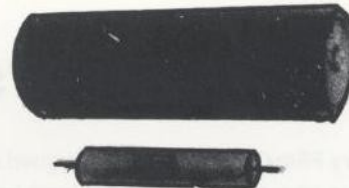
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TEL: 516 231-6400

FAX: 516 231-6465

Film Capacitors: Round Phenolic Tube

Stanley Electronics Phenolic Tube Capacitors feature a composite paper and plastic film dielectric that is oil impregnated to provide optimum high voltage performance. These capacitors are particularly suited for filter and coupling applications (Types PL and RL) and pulse or discharge service (Types PR and RR). The convenience of vertical and horizontal mounting makes these capacitor shapes popular. Since the tubes are made of heavy wall phenolic/paper laminate and are insulators, the cost of expensive ceramic terminals is avoided with these designs. Types PL and RL Capacitors are designed for low discharge current such as required in coupling and filter circuits. Types PR and RR Capacitors are designed to accommodate higher discharge currents in pulse applications and high frequencies. They can be used for AC service with derating.



PL Series: Filter & Coupling

Part No.	MFD	D	L
2,500 VDC			
PL3*252C104	.1	1.0	3.5
PL3*252C504	.5	1.5	7.5
PL3*252C105	1.0	2.5	3.5
PL3*252C505	5.0	2.5	7.5
PL3*252C106	10.0	3.5	7.5
5,000 VDC			
PL3*502C503	.05	1.5	3.5
PL3*502C104	.1	1.5	3.5
PL3*502C504	.5	1.5	7.5
PK3*502C105	1.0	2.0	7.5
PL3*502C505	5.0	4.0	7.5
10,000 VDC			
PL3*103C103	.01	1.5	3.5
PL3*103C503	.05	2.0	3.5
PL3*103C104	.1	2.0	7.5
PL3*103C504	.5	2.5	9.5
PL3*103C105	1.0	3.5	9.5
20,000 VDC			
PL3*203C103	.01	1.0	9.5
PL3*203C503	.05	1.5	13.5
PL3*203C104	.1	2.0	13.5
PL3*203C504	.5	3.5	17.5
50,000 VDC			
PL3*503C501	.0005	1.0	9.5
PL3*503C102	.001	1.0	13.5
PL3*503C502	.005	1.5	13.5
PL3*503C103	.01	2.0	13.5
PL3*503C503	.05	2.5	21.5
100,000 VDC			
PL3*104C501	.0005	1.0	21.5
PL3*104C102	.001	1.5	21.5
PL3*104C502	.005	2.0	21.5
PL3*104C103	.01	2.0	41.5
PL3*104C503	.05	3.5	41.5
200,000 VDC			
PL3*204C202	.0002	1.0	33.5
PL3*204C502	.0005	1.5	33.5
PL3*204C103	.001	2.0	33.5

PR Series: Pulse

Part No.	MFD	D	L
2,500 VDC			
PR3*252C503	.05	1.5	3.5
PR3*252C104	.1	1.5	3.5
PR3*252C504	.5	2.0	7.5
PR3*252C105	1.0	2.0	7.5
PR3*252C205	2.0	2.5	7.5
5,000 VDC			
PR3*502C103	.01	1.0	3.5
PR3*502C503	.05	2.0	3.5
PR3*502C104	.1	1.5	7.5
PR3*502C504	.5	2.5	7.5
PR3*502C105	1.0	3.0	7.5
10,000 VDC			
PR3*103C103	.01	1.5	3.5
PR3*103C503	.05	1.5	7.5
PR3*103C104	.1	2.0	7.5
PR3*103C504	.5	4.0	13.5
PR3*103C105	1.0	4.0	13.5
20,000 VDC			
PR3*203C502	.005	1.0	9.5
PR3*203C103	.01	1.5	13.5
PR3*203C503	.05	2.0	13.5
PR3*203C104	.1	2.5	17.5
50,000 VDC			
PR3*503C501	.0005	1.0	13.5
PR3*503C102	.001	1.5	13.5
PR3*503C502	.005	2.0	21.5
PR3*503C103	.01	2.0	21.5
PR3*503C503	.05	4.0	33.5
100,000 VDC			
PR3*104C101	.0001	1.0	17.5
PR3*104C501	.0005	1.5	21.5
PR3*104C102	.001	1.5	21.5
PR3*104C502	.005	2.0	41.5
PR3*104C103	.01	2.5	41.5

*Select either studs or inserts, see page 2.



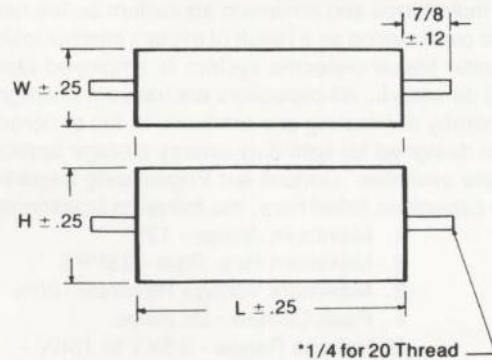
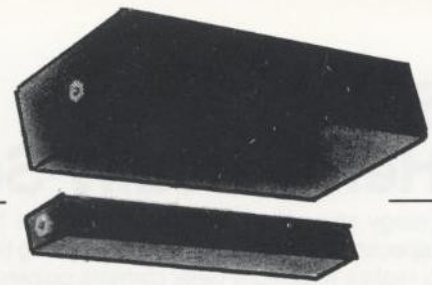
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TEL: 516 231-6400 FAX: 516 231-6465

Film Capacitors: Rectangular Phenolic Tube

The Round Tube Capacitors (Types PL and PR) are very well suited for vertical mounting in high voltage equipment. The Rectangular Tubes can be obtained with side mounted studs for mounting them horizontally on flat insulated surfaces or between insulated supports. Because of tube material limitations, Phenolic Tube Capacitors are restricted for use in non-critical environments such as low humidity, under oil or closed containers. Where military applications require hermeticity it is suggested that metal housings such as found in the EL, ER, SR Series be used.

Ceramic Tube Capacitors: Many of the lower voltage round tube capacitors (up to 40 KVDC) can be obtained from **Stanley Electronics** in ceramic tubes. These capacitors are excellent for higher humidity conditions. Our standard line of ceramic tube capacitors (Types CL and CR) are listed in a separate bulletin. Special sizes and ratings are available in ceramic, as well as phenolic tubes to meet customer requirements.



*For 2-1/4 x 4-1/4 rectangular thread is 3/8-16.

Available with threaded insert.

RL Series: Filtering & Coupling

Part No.	MFD	L	W	H
25,000 VDC				
RL4*253C502	.005	5.5	1.5	2.0
RL4*253C103	.01	5.5	1.5	2.0
RL4*253C203	.02	5.5	1.75	2.75
RL4*253C503	.05	5.5	2.25	4.5
50,000 VDC				
RL4*503C102	.001	9.5	1.5	2.0
RL4*503C202	.002	9.5	1.5	2.0
RL4*503C502	.005	11.5	1.5	2.0
RL4*503C103	.01	9.5	1.75	2.75
RL4*503C203	.02	17.5	1.75	2.75
RL4*503C503	.05	13.5	2.25	4.5
100,000 VDC				
RL4*104C102	.001	13.5	1.5	2.0
RL4*104C202	.002	17.5	1.5	2.0
RL4*104C502	.005	17.5	1.75	2.75
RL4*104C103	.01	13.5	2.25	4.5
RL4*104C203	.02	21.5	2.25	4.5
RL4*104C503	.05	33.5	2.25	4.5
150,000 VDC				
RL4*154C102	.001	19.5	1.5	2.0
RL4*154C202	.002	19.5	1.75	2.75
RL4*154C502	.005	33.5	1.75	2.75
RL4*154C103	.01	21.5	2.25	4.5
RL4*154C203	.02	39.5	2.25	4.5

RR Series: Pulse

Part No.	MFD	L	W	H
25,000 VDC				
RR4*253C202	.002	5.5	1.5	2.0
RR4*253C502	.005	7.5	1.5	2.0
RR4*253C103	.01	7.5	1.75	2.75
RR4*253C203	.02	9.5	1.75	2.75
50,000 VDC				
RR4*503C501	.0005	5.5	1.5	2.0
RR4*503C102	.001	9.5	1.5	2.0
RR4*503C202	.002	9.5	1.75	2.75
RR4*503C502	.005	9.5	1.75	2.75
RR4*503C103	.01	11.5	2.25	4.5
RR4*503C203	.02	13.5	2.25	4.5
100,000 VDC				
RR4*104C501	.0005	13.5	1.5	2.0
RR4*104C102	.001	17.5	1.5	2.0
RR4*104C202	.002	21.5	1.75	2.75
RR4*104C502	.005	25.5	2.25	4.5
RR4*104C103	.01	33.5	2.25	4.5
RR4*104C203	.02	39.5	2.25	4.5

*Select either studs or inserts, see page 2.



STANLEY ELECTRONICS

A DIVISION OF RFI CORPORATION, 100 PINE AIRE DRIVE, BAYSHORE, L.I. NY 11706
TEL: 516 231-6400 FAX: 516 231-6465

Steel Cased Hermetically Sealed Capacitors

Energy storage capacitors are intended for use in applications wherein the capacitor is charged over a relatively long time and discharged rapidly. In order to realize maximum peak currents quickly these capacitors are designed for minimum inductance and minimum equivalent series resistance.

To prevent overheating as a result of excess internal losses, a high quality film and capacitor tissue dielectric system is employed along with a high purity mineral oil derivative. All capacitors are vacuum impregnated and completely oil filled thereby eliminating any tendency to arc or corona. These capacitors have been designed for light duty energy storage applications. Heavier duty versions are available. Consult our Engineering Department.

For those capacitors listed here, the following limitations apply:

1. Maximum Joules - 125
2. Maximum Rep. Rate - 25PPS
3. Maximum Voltage Reversal - 20%
4. Peak Current - 2K Amps
5. Voltage Range - 2.5KV to 15KV

The popular CP72 deep drawn steel cans are used to house the type SL and SR capacitors. Filter and coupling applications are typical uses of type SL capacitors. Type SR capacitors are used for pulse type applications. They are designed for service up to 25PPS at 80% of rated DC voltage. The DC rating can be used for 5PPS and below.

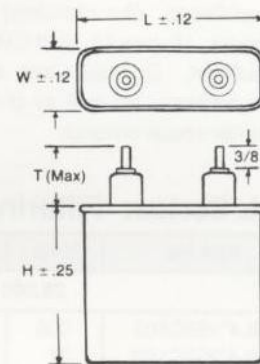
Pulse type capacitors use extended foil construction.. The standard designs use mineral oil impregnant. Castor oil is available as an option.

Terminals for SL and SR type capacitors are steatite ceramic with solder-seal design. Sizes of terminals vary with voltage ratings as shown in the tabulation. Standard spacing between terminals is 2". Standard terminals stud sizes are as indicated.

Pulse type capacitors can be designed in CP72 cans for 100PPS or more on a custom basis. The standard peak current rating is 2K amps and maximum discharge voltage reversal is 20%. Higher rated peak current and discharge voltage reversal requirements can be met with custom designed capacitors.



Standard Terminals		
DC Voltage	T	Stud
1,500	1.0	6-32
2,500	1.0	6-32
5,000	1.57	8-32
7,500	2.25	10-32
10,000	2.25	10-32
15,000	2.25	10-32
20,000	2.50	10-32



ER Series: Energy Storage

Part No.	MFD	L	W	H
2,500 VDC				
ER6G252C505	5.0	1.75	3.75	3.75
ER6G252C106	10.0	1.75	3.75	5.75
ER6G252C206	20.0	3.19	3.75	5.75
ER6G252C306	30.0	3.75	4.56	5.75
5,000 VDC				
ER6G502C205	2.0	1.75	3.75	4.75
ER6G502C505	5.0	3.19	3.75	6.25
ER6G502C106	10.0	3.75	4.56	7.25
7,500 VDC				
ER6G752C504	.5	1.75	3.75	4.75
ER6G752C105	1.0	1.75	3.75	5.50
ER6G752C205	2.0	3.19	3.75	5.50
10,000 VDC				
ER6G103C104	.1	1.25	3.75	4.50
ER6G103C504	.5	1.75	3.75	5.55
ER6G103C105	1.0	3.19	3.75	5.25
ER6G103C205	2.0	3.75	4.56	6.00
15,000 VDC				
ER6G153C503	.05	1.25	3.75	4.25
ER6G153C104	.1	2.25	3.75	4.25
ER6G153C204	.2	2.25	3.75	5.25
ER6G153C504	.5	2.25	3.75	6.50

SR Series: Pulse

Part No.	MFD	L	W	H
1,500 VDC				
SR6G152C205	2.0	4.75	1.75	3.75
SR6G152C505	5.0	6.25	2.25	3.75
SR6G152C106	10.0	6.25	3.75	4.56
SR6G152C206	20.0	9.25	3.75	4.56
2,500 VDC				
SR6G252C105	1.0	4.75	1.25	3.75
SR6G252C205	2.0	6.25	2.25	3.75
SR6G252C505	5.0	7.25	3.75	4.56
SR6G252C106	10.0	8.25	3.75	4.56
5,000 VDC				
SR6G502C504	.5	4.75	1.75	3.75
SR6G502C105	1.0	4.75	2.50	3.75
SR6G502C205	2.0	7.25	3.75	4.56
SR6G502C505	5.0	9.25	3.75	4.56
10,000 VDC				
SR6G103C503	.05	3.25	1.25	3.75
SR6G103C104	.1	4.75	1.25	3.75
SR6G103C504	.5	6.25	3.75	4.56
SR6G103C105	1.0	6.25	3.75	4.56
15,000 VDC				
SR6G153C203	.02	3.25	1.25	3.75
SR6G153C503	.05	4.75	1.75	3.75
SR6G153C104	.1	4.75	2.25	3.75
SR6G153C204	.2	6.25	3.75	4.56

SL Series: Filter and Coupling

Part No.	MFD	L	W	H
1,500 VDC				
SL6G152C505	5.0	4.75	1.25	3.75
SL6G152C106	10.0	6.25	2.25	3.75
SL6C152C206	20.0	6.75	3.75	4.56
SL6C152C306	30.0	8.25	3.75	4.56
2,500 VDC				
SL6G252C505	5.0	4.75	2.25	3.75
SL6G252C106	10.0	6.25	3.19	3.75
SL6G252C206	20.0	7.25	3.75	4.56
SL6G252C306	30.0	9.25	3.75	4.56
5,000 VDC				
SL6G502C105	1.0	4.75	1.25	3.75
SL6G502C205	2.0	4.75	2.25	3.75
SL6G502C505	5.0	6.25	3.75	4.56
SL6G502C106	10.0	9.25	3.75	4.56
10,000 VDC				
SL6G103C104	.1	3.25	1.25	3.75
SL6G103C504	.5	6.25	2.25	3.75
SL6G103C105	1.0	6.25	3.75	4.56
SL6G103C205	2.0	6.75	3.75	4.56
15,000 VDC				
SL6G153C503	.05	4.75	1.25	3.75
SL6G153C104	.1	4.75	1.75	3.75
SL6G153C204	.2	6.25	2.25	3.75
SL6G153C504	.5	7.25	3.75	4.56
20,000 VDC				
SL6G203C503	.05	4.75	1.25	3.75
SL6G203C104	.1	4.75	1.75	3.75
SL6G203C204	.2	7.25	2.25	3.75
SL6G203C504	.5	8.25	3.75	4.56

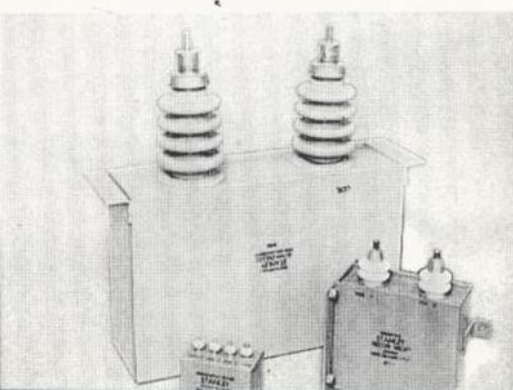
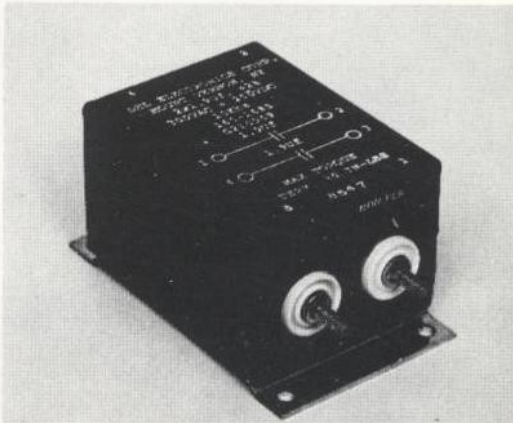
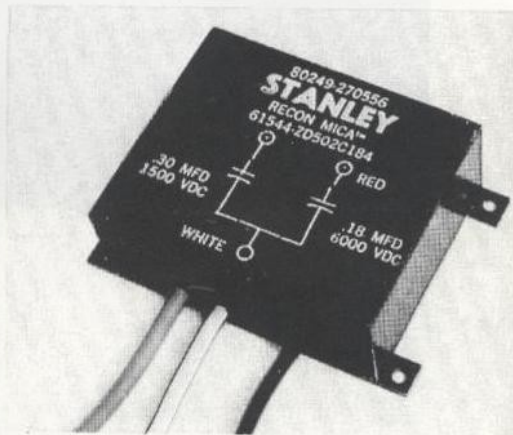
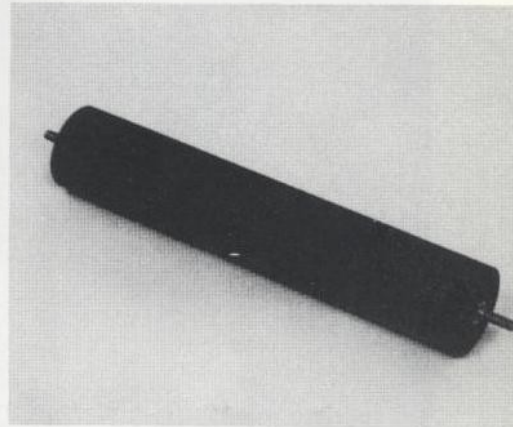
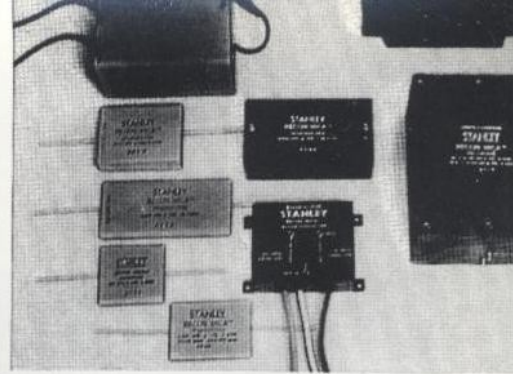
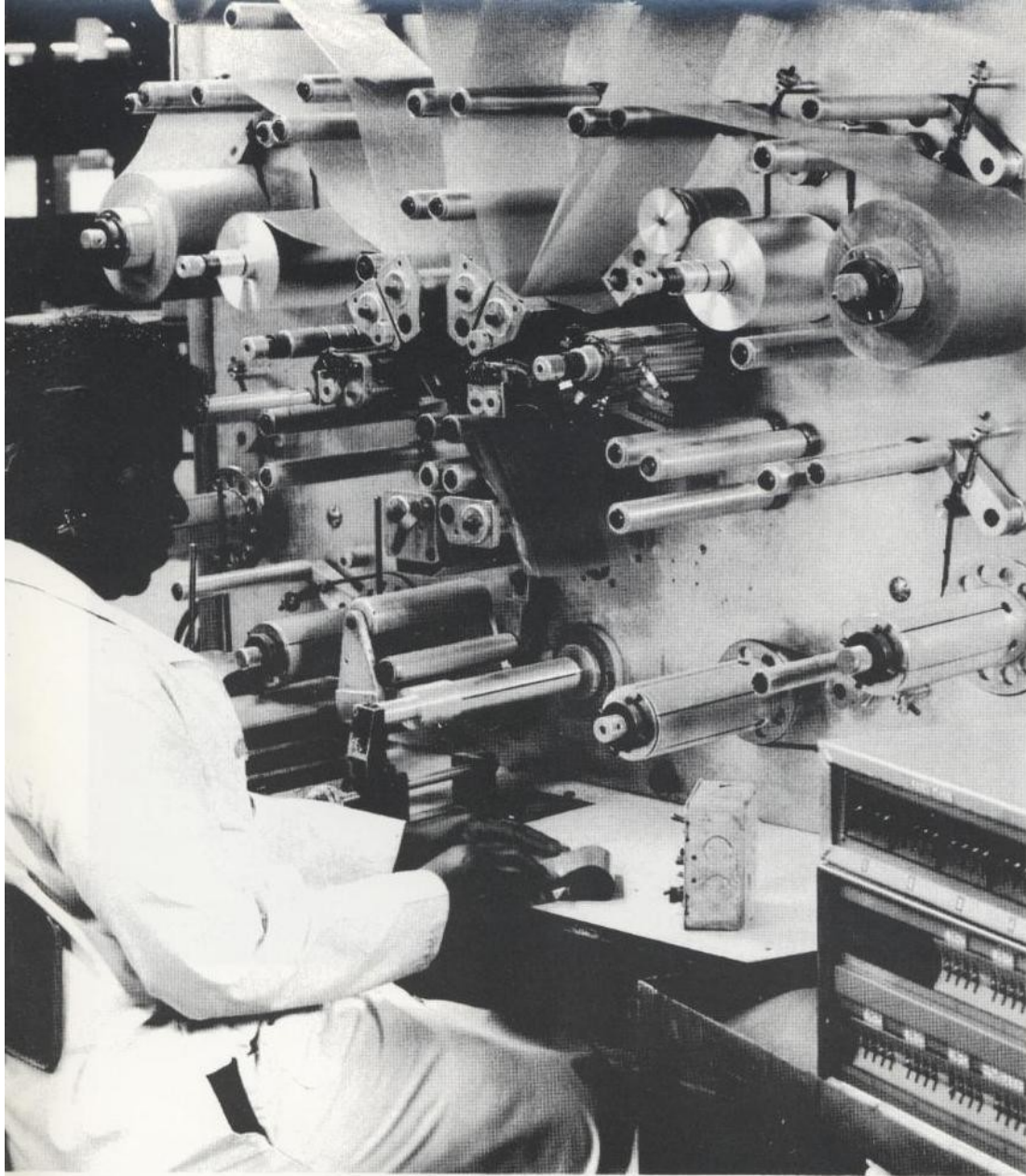


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