

This capacitor series was designed for AC and pulsing applications. The units are rated for 135 VRMS and 67 VRMS (to 400 Hz), but may also be used for all DC applications up to 200 VDC and 400 VDC respectively.

A wide range of sizes and styles is available. You can choose from axial-lead wrap and fill in oval and round configurations or rectangular epoxy case with axial and radial leads.

Two types of dielectric material are used: metallized polypropylene and polypropylene and foil. Metallized versions are offered in all styles.

Polypropylene and foil capacitors may also be specified in all standard styles.

All capacitors feature extended foil construction and standard tin-coated copper-clad steel leads. Nickel, copper, dumet and other special leads are available.

Protective clear wrap is offered on all wrap and fill units.

The potting material and endfills of Electrocube's capacitors meet or exceed the flammability requirements of UL94V0.

Dimensional variations for all MFD values are available with the same volume to meet your design requirements.



## SPECIFICATIONS

**Temperature:** -55°C to +85°C at rated voltage; to +105°C with 50% voltage derating.

**Dielectric Voltage Test:** Will withstand the application of 150 VDC, 300 VDC and 600 VDC on 67 VAC, 135 VAC and 270 VAC respectively at 25°C for a period not to exceed 1 minute; current limited to 5 mA.

**DC Life Tests\*:** Will withstand the application of 138 VDC, 280 VDC and 560 VDC, respectively, on the 67 VRMS, 135 VRMS and 270 VRMS parts at 105°C for 250 hrs., with not more than 1 failure in 12 permitted, current limited to 5 mA.

**Dissipation Factor:** Shall not exceed 0.1% at 25°C for values to 1 mfd; 0.2% for values over 1 mfd.

**Dielectric Absorption:** Shall not exceed 0.1% at 25°C per MIL-C-19978.

**Acceptance Criteria:** Measurement frequency for capacitance and dissipation factor shall be 1000 Hz for values up to 1 mfd and 120 Hz for values of 1.0 mfd and up.

**Insulation Resistance:** At DC voltages of 100 VDC (67 VAC), 200 VDC (135 VAC), 400 VDC (270 VAC), 1000 VDC (660 VAC), units shall meet the minimum values below:

TEMP. (°C)	MEG x MFDS	MEG (NEED NOT EXCEED)
25	100,000	200,000
85	5,000	10,000
105	500	1,000

\*For DC life test criteria, consult the factory.

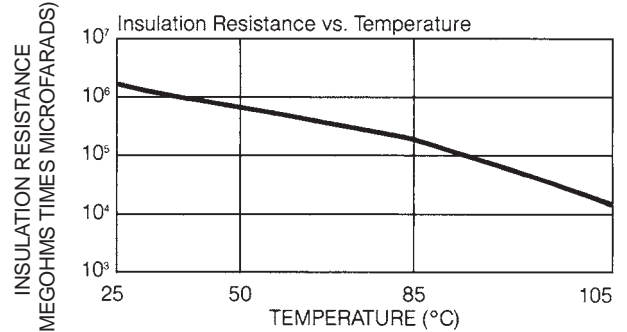
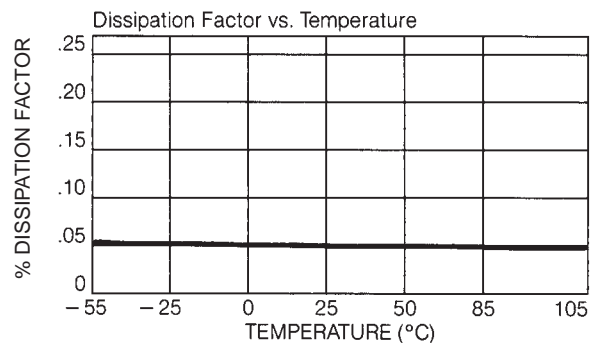
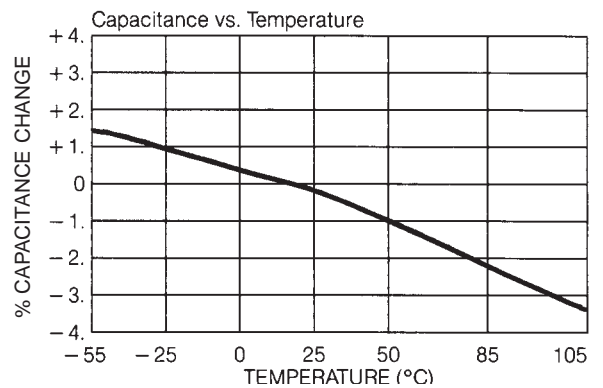
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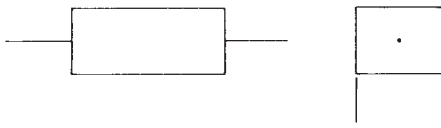
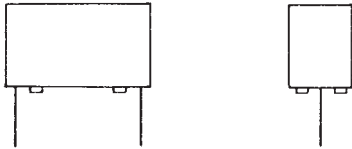
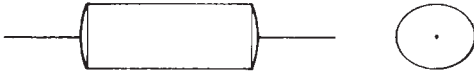

For information regarding insulating sleeves, mountings, special terminals, non-standard leads, circuit connections and other hardware, please consult factory.

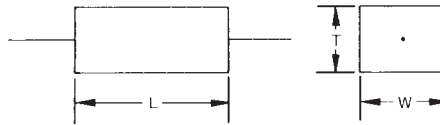
For styles and ratings not shown, or for unusual requirements necessitated by special circuit applications (including higher IR or lower DF), consult the factory direct.

**All Electrocube film capacitors have endfills and tape that meet or exceed the flammability requirements of UL94V0.**

### TYPICAL DIELECTRIC CHARACTERISTIC CURVES



SERIES NO.	DESCRIPTION
931A	<b>FLAME RETARDANT EPOXY CASE, RECTANGULAR AXIAL LEADS</b> 
932A	<b>FLAME RETARDANT EPOXY CASE, RECTANGULAR RADIAL LEADS</b> 
935B	<b>FLAME RETARDANT WRAP AND FILL, OVAL</b> 
935D	<b>FLAME RETARDANT WRAP AND FILL, ROUND</b> 



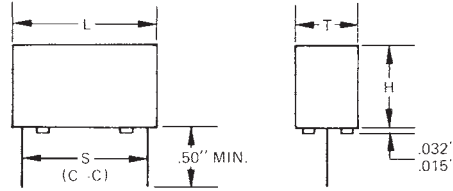
**EPOXY CASE  
RECTANGULAR  
CONFIGURATION**

For max. T, W and L dimensions, allow + .010".

LEAD LENGTH: 1.5" MIN.

		100 VOLT DC/67 VAC				200 VOLT DC/135 VAC				400 VOLT DC/270 VAC					
MFD	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	PART NO.	DIMENSIONS			LEAD SIZE (AWG)
		T	W	L			T	W	L			T	W	L	
.0010	931A1B102*	.17	.27	.49	24	931A1C102*	.17	.29	.42	24	931A1E102*	.17	.29	.42	24
.0015	931A1B152*	.17	.27	.49	24	931A1C152*	.17	.29	.42	24	931A1E152*	.17	.29	.42	24
.0022	931A1B222*	.17	.27	.49	24	931A1C222*	.17	.29	.42	24	931A1E222*	.17	.29	.42	24
.0033	931A1B332*	.17	.27	.49	24	931A1C332*	.17	.29	.42	24	931A1E332*	.17	.29	.42	24
.0047	931A1B472*	.17	.27	.49	24	931A1C472*	.17	.29	.42	24	931A1E472*	.17	.29	.42	24
.0068	931A1B682*	.17	.27	.49	24	931A1C682*	.17	.29	.42	24	931A1E682*	.17	.29	.42	24
.0082	931A1B822	.17	.27	.49	24	931A1C822*	.17	.29	.42	24	931A1E822*	.17	.29	.55	24
.010	931A1B103*	.17	.27	.49	24	931A1C103*	.17	.29	.42	24	931A1E103*	.17	.29	.55	24
.015	931A1B153*	.17	.27	.49	24	931A1C153*	.17	.29	.55	24	931A1E153*	.23	.36	.55	24
.022	931A1B223*	.17	.27	.49	24	931A1C223*	.17	.29	.55	24	931A1E223*	.23	.36	.55	24
.033	931A1B333*	.17	.29	.55	24	931A1C333*	.17	.29	.55	24	931A1E333*	.29	.42	.55	24
.047	931A1B473*	.17	.29	.55	24	931A1C473*	.23	.36	.55	24	931A1E473*	.29	.42	.67	24
.068	931A1B683*	.17	.29	.55	24	931A1C683*	.23	.36	.55	24	931A1E683*	.29	.42	.67	24
.082	931A1B823	.17	.29	.55	24	931A1C823*	.29	.42	.55	24	931A1E823*	.29	.42	.82	22
.10	931A1B104*	.23	.36	.55	24	931A1C104*	.29	.42	.55	24	931A1E104*	.39	.54	.82	22
.15	931A1B154*	.23	.36	.55	24	931A1C154*	.29	.42	.67	24	931A1E154*	.39	.54	.82	22
.22	931A1B224*	.29	.42	.55	24	931A1C224*	.29	.42	.82	24	931A1E224*	.39	.54	1.04	22
.33	931A1B334*	.29	.42	.67	24	931A1C334*	.39	.54	.82	22	931A1E334*	.39	.54	1.24	22
.47	931A1B474*	.29	.42	.82	24	931A1C474*	.39	.54	1.04	22	931A1E474*	.56	.72	1.24	20
.68	931A1B684*	.39	.54	.82	22	931A1C684*	.39	.54	1.24	22	931A1ED684*	.56	.72	1.24	20
.82	931A1B824*	.39	.54	.82	22	931A1C824*	.39	.54	1.24	22	931A1E824*	.56	.72	1.75	20
1.0	931A1B105*	.39	.54	1.24	22	931A1C105*	.56	.72	1.24	20	931A1E105*	.56	.72	1.75	20
2.0	931A1B205*	.56	.72	1.24	20	931A1C205*	.56	.72	1.75	20	931A1E205*	-	-	-	-
5.0	931A1B505*	.56	.72	1.75	20	931A1C505*	-	-	-	-	931A1E505*	-	-	-	-

\*Add tolerance designator to complete part number: F = ±1%, G = ±2%, J = ±5%, K = ±10%, M = ±20%

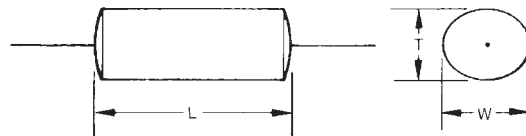


**EPOXY CASE  
RECTANGULAR  
CONFIGURATION**

For max. T, W and L dimensions, allow  $+.010''$ .  
For max. S dimensions, allow  $+.015''$ .

		100 VOLT DC/67 VAC					200 VOLT DC/135 VAC					400 VOLT DC/270 VAC						
MFD	PART NO.	DIMENSIONS				LEAD SIZE (AWG)	PART NO.	DIMENSIONS				LEAD SIZE (AWG)	PART NO.	DIMENSIONS				LEAD SIZE (AWG)
		T	W	L	S			T	W	L	S			T	W	L	S	
.0010	932A1B102*	.18	.30	.42	.300	22	932A1C102*	.18	.30	.42	.300	22	932A1E102*	.18	.30	.42	.300	22
.0015	932A1B152*	.18	.30	.42	.300	22	932A1C152*	.18	.30	.42	.300	22	932A1E152*	.18	.30	.42	.300	22
.0022	932A1B222*	.18	.30	.42	.300	22	932A1C222*	.18	.30	.42	.300	22	932A1E222*	.18	.30	.42	.300	22
.0033	932A1B332*	.18	.30	.42	.300	22	932A1C332*	.18	.30	.42	.300	22	932A1E332*	.18	.30	.42	.300	22
.0047	932A1B472*	.18	.30	.42	.300	22	932A1C472*	.18	.30	.42	.300	22	932A1E472*	.18	.30	.42	.300	22
.0068	932A1B682*	.18	.30	.42	.300	22	932A1C682*	.18	.30	.42	.300	22	932A1E682*	.18	.30	.42	.300	22
.0082	932A1B822*	.18	.30	.42	.300	22	932A1C822*	.18	.30	.42	.300	22	932A1E822*	.18	.30	.55	.400	22
.010	932A1B103*	.18	.30	.42	.300	22	932A1C103*	.18	.30	.42	.300	22	932A1E103*	.18	.30	.55	.400	22
.015	932A1B153*	.18	.30	.42	.300	22	932A1C153*	.18	.30	.55	.400	22	932A1E153*	.24	.37	.55	.400	22
.022	932A1B223*	.18	.30	.42	.300	22	932A1C223*	.18	.30	.55	.400	22	932A1E223*	.24	.37	.55	.400	22
.033	932A1B333*	.18	.30	.55	.400	22	932A1C333*	.18	.30	.55	.400	22	932A1E333*	.30	.43	.55	.400	22
.047	932A1B473*	.18	.30	.55	.400	22	932A1C473*	.24	.37	.55	.400	22	932A1E473*	.30	.43	.67	.500	22
.068	932A1B683*	.18	.30	.55	.400	22	932A1C683*	.24	.37	.55	.400	22	932A1E683*	.30	.43	.67	.500	22
.082	932A1B823*	.18	.30	.55	.400	22	932A1C823*	.30	.43	.55	.400	22	932A1E823*	.30	.43	.82	.600	22
.10	932A1B104*	.24	.37	.55	.400	22	932A1C104*	.30	.43	.55	.400	22	932A1E104*	.40	.55	.82	.600	20
.15	932A1B154*	.24	.37	.55	.400	22	932A1C154*	.30	.43	.67	.500	22	932A1E154*	.40	.55	.82	.600	20
.22	932A1B224*	.30	.43	.55	.400	22	932A1C224*	.30	.43	.82	.600	22	932A1E224*	.40	.55	1.04	.800	20
.33	932A1B334*	.30	.43	.67	.500	22	932A1C334*	.40	.55	.82	.600	22	932A1E334*	.40	.55	1.24	1.100	20
.47	932A1B474*	.30	.43	.82	.600	22	932A1C474*	.40	.55	1.04	.800	20	932A1E474*	.57	.73	1.24	1.100	20
.68	932A1B684*	.40	.55	.82	.600	20	932A1C684*	.40	.55	1.24	1.100	20	932A1E684*	.57	.73	1.24	1.100	20
.82	932A1B824*	.40	.55	.82	.600	20	932A1C824*	.40	.55	1.24	1.100	20	932A1E824*	.57	.73	1.75	1.600	20
1.0	932A1B105*	.40	.55	1.24	1.100	20	932A1C105*	.57	.73	1.24	1.100	20	932A1E105*	.57	.73	1.75	1.600	20
2.0	932A1B205*	.57	.73	1.24	1.100	20	932A1C205*	.57	.73	1.75	1.600	20	932A1E205*	.63	1.00	1.75	1.600	20
5.0	932A1B505*	.57	.73	1.75	1.600	20	932A1C505*	-	-	-	-	-	932A1E505*	-	-	-	-	-

\*Add tolerance designator to complete part number: F =  $\pm 1\%$ , G =  $\pm 2\%$ , J =  $\pm 5\%$ , K =  $\pm 10\%$ , M =  $\pm 20\%$


**WRAP AND FILL  
OVAL CONFIGURATION**

For max. T, W and L dimensions, allow +.050".

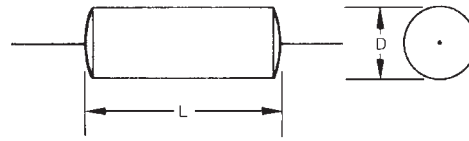
LEAD LENGTH: 2.0" ± .50"

Available in epoxy case configurations; please consult factory.

100 VOLT DC/67 VAC						200 VOLT DC/135 VAC				
MFD	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	PART NO.	DIMENSIONS			LEAD SIZE (AWG)
		T	W	L			T	W	L	
.0010	935B1B102*	.09	.18	.40	26	935B1C102*	.09	.18	.40	26
.0015	935B1B152*	.09	.18	.40	26	935B1C152*	.09	.18	.40	26
.0022	935B1B222*	.09	.18	.40	26	935B1C222*	.09	.18	.40	26
.0033	935B1B332*	.09	.18	.40	26	935B1C332*	.09	.18	.40	26
.0047	935B1B472*	.09	.18	.40	26	935B1C472*	.09	.18	.40	26
.0068	935B1B682*	.09	.18	.40	26	935B1C682*	.09	.18	.40	26
.0082	935B1B822*	.09	.18	.40	26	935B1C822*	.09	.18	.40	26
.010	935B1B103*	.09	.18	.40	26	935B1C103*	.09	.18	.40	26
.015	935B1B153*	.09	.18	.40	26	935B1C153*	.09	.18	.53	26
.022	935B1B223*	.09	.18	.40	26	935B1C223*	.09	.18	.53	26
.033	935B1B333*	.09	.18	.53	26	935B1C333*	.12	.21	.53	26
.047	935B1B473*	.09	.18	.53	26	935B1C473*	.15	.24	.53	24
.068	935B1B683*	.10	.20	.53	26	935B1C683*	.18	.28	.53	24
.082	935B1B823*	.12	.21	.53	26	935B1C823*	.20	.30	.53	24
.10	935B1B104*	.14	.23	.53	24	935B1C104*	.23	.32	.53	24
.15	935B1B154*	.18	.27	.53	24	935B1C154*	.22	.32	.65	24
.22	935B1B224*	.22	.32	.53	24	935B1C224*	.23	.33	.78	24
.33	935B1B334*	.22	.32	.65	24	935B1C334*	.30	.39	.78	24
.47	935B1B474*	.23	.33	.78	24	935B1C474*	.32	.41	.90	22
.68	935B1B684*	.29	.38	.78	24	935B1C684*	.29	.45	1.15	22
.82	935B1B824*	.32	.42	.78	22	935B1C824*	.32	.49	1.15	22
1.0	935B1B105*	.21	.38	1.15	22	935B1C105*	.36	.53	1.15	20
2.0	935B1B205*	.33	.50	1.15	22	935B1C205*	.47	.64	1.40	20
5.0	935B1B505*	.44	.60	1.65	20	935B1C505*	.64	.81	1.90	20
10.0	935B1B106*	.59	.76	1.90	20	935B1C106*	.94	1.11	1.90	20
15.0	935B1B156*	.75	.91	1.90	20	935B1C156*	1.20	1.39	1.90	20
20.0	935B1B206*	.88	1.05	1.90	20	935B1C206*	1.37	1.54	1.90	20

400 VOLT DC/270 VAC						600 VOLT DC/440 VAC				
MFD	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	PART NO.	DIMENSIONS			LEAD SIZE (AWG)
		T	W	L			T	W	L	
.0010	935B1E102*	.09	.18	.40	26	935B1F102*	.09	.18	.40	26
.0015	935B1E152*	.09	.18	.40	26	935B1F152*	.09	.18	.40	26
.0022	935B1E222*	.09	.18	.40	26	935B1F222*	.09	.18	.40	26
.0033	935B1E332*	.09	.18	.40	26	935B1F332*	.14	.23	.40	26
.0047	935B1E472*	.09	.18	.40	26	935B1F472*	.15	.24	.40	26
.0068	935B1E682*	.09	.18	.40	26	935B1F682*	.13	.22	.53	26
.0082	935B1E822*	.09	.18	.53	26	935B1F822*	.14	.23	.53	26
.010	935B1E103*	.09	.18	.53	26	935B1F103*	.15	.24	.53	26
.015	935B1E153*	.09	.18	.53	24	935B1F153*	.19	.29	.53	24
.022	935B1E223*	.12	.21	.53	24	935B1F223*	.15	.24	.69	22
.033	935B1E333*	.16	.26	.53	24	935B1F333*	.23	.33	.69	22
.047	935B1E473*	.20	.30	.53	24	935B1F473*	.28	.38	.69	22
.068	935B1E683*	.25	.35	.53	24	935B1F683*	.26	.35	.95	22
.082	935B1E823*	.22	.31	.65	24	935B1F823*	.28	.38	.95	22
.10	935B1E104*	.24	.34	.65	22	935B1F104*	.31	.41	.95	22
.15	935B1E154*	.31	.40	.65	22	935B1F154*	.38	.48	.95	20
.22	935B1E224*	.34	.43	.78	20	935B1F224*	.40	.49	1.21	20
.33	935B1E334*	.42	.52	.78	20	935B1F334*	.49	.59	1.21	20
.47	935B1E474*	.32	.48	1.15	20	935B1F474*	.45	.61	1.46	20
.68	935B1E684*	.39	.57	1.15	20	935B1F684*	.52	.64	1.72	20
.82	935B1E824*	.45	.61	1.15	20	935B1F824*	.58	.75	1.72	20
1.0	935B1E105*	.43	.60	1.40	20	935B1F105*	.63	.79	1.72	20
2.0	935B1E205*	.57	.74	1.65	20	935B1F205*	.86	1.03	1.72	20
5.0	935B1E505*	.87	1.04	1.90	20	935B1F505*	1.16	1.33	1.96	20
10.0	935B1E106*	1.27	1.44	1.90	20	935B1F106*	-	-	-	-
15.0	935B1E156*	1.40	1.70	2.15	20	935B1F156*	-	-	-	-
20.0	935B1E206*	1.74	1.91	2.15	20	935B1F206*	-	-	-	-

\*Add tolerance designator to complete part number: F = ±1%, G = ±2%, J = ±5%, K = ±10%, M = ±20%



**WRAP AND FILL  
ROUND CONFIGURATION**

For max. D and L dimensions, allow +.050".

LEAD LENGTH: 2.0" ± .50"

100 VOLT DC/67 VAC					200 VOLT DC/135 VAC			
MFD	PART NO.	DIMENSIONS		LEAD SIZE (AWG)	PART NO.	DIMENSIONS		LEAD SIZE (AWG)
		D	L			D	L	
.0010	935D1B102*	.15	.40	24	935D1C102*	.15	.40	24
.0015	935D1B152*	.15	.40	24	935D1C152*	.15	.40	24
.0022	935D1B222*	.15	.40	24	935D1C222*	.15	.40	24
.0033	935D1B332*	.15	.40	24	935D1C332*	.15	.40	24
.0047	935D1B472*	.15	.40	24	935D1C472*	.15	.40	24
.0068	935D1B682*	.15	.40	24	935D1C682*	.15	.40	24
.0082	935D1B822*	.15	.40	24	935D1C822*	.15	.40	24
.010	935D1B103*	.15	.40	24	935D1C103*	.15	.40	24
.015	935D1B153*	.15	.40	24	935D1C153*	.15	.53	24
.022	935D1B223*	.15	.40	24	935D1C223*	.15	.53	24
.033	935D1B333*	.15	.53	24	935D1C333*	.18	.53	24
.047	935D1B473*	.15	.53	24	935D1C473*	.21	.53	24
.068	935D1B683*	.16	.53	24	935D1C683*	.24	.53	24
.082	935D1B823*	.18	.53	24	935D1C823*	.26	.53	24
.10	935D1B104*	.20	.53	24	935D1C104*	.29	.53	24
.15	935D1B154*	.24	.53	24	935D1C154*	.28	.65	24
.22	935D1B224*	.28	.53	24	935D1C224*	.29	.78	24
.33	935D1B334*	.28	.65	24	935D1C334*	.36	.78	22
.47	935D1B474*	.29	.78	24	935D1C474*	.38	.90	22
.68	935D1B684*	.35	.78	22	935D1C684*	.39	1.15	22
.82	935D1B824*	.38	.78	22	935D1C824*	.43	1.15	22
1.0	935D1B105*	.31	1.15	22	935D1C105*	.47	1.15	22
2.0	935D1B205*	.43	1.15	22	935D1C205*	.57	1.40	20
5.0	935D1B505*	.55	1.65	20	935D1C505*	.74	1.90	20
10.0	935D1B106*	.70	1.90	20	935D1C106*	1.05	1.90	20
15.0	935D1B156*	.86	1.90	20	935D1C156*	1.31	1.90	20
20.0	935D1B206*	.99	1.90	20	935D1C206*	1.48	1.90	20

400 VOLT DC/270 VAC					600 VOLT DC/440 VAC			
MFD	PART NO.	DIMENSIONS		LEAD SIZE (AWG)	PART NO.	DIMENSIONS		LEAD SIZE (AWG)
		D	L			D	L	
.0010	935D1E102*	.15	.40	24	935D1F102*	.15	.40	24
.0015	935D1E152*	.15	.40	24	935D1F152*	.15	.40	24
.0022	935D1E222*	.15	.40	24	935D1F222*	.15	.40	24
.0033	935D1E332*	.15	.40	24	935D1F332*	.15	.40	24
.0047	935D1E472*	.15	.40	24	935D1F472*	.15	.40	24
.0068	935D1E682*	.15	.40	24	935D1F682*	.19	.53	24
.0082	935D1E822*	.15	.53	24	935D1F822*	.20	.53	24
.010	935D1E103*	.15	.53	24	935D1F103*	.21	.53	24
.015	935D1E153*	.15	.53	24	935D1F153*	.23	.53	24
.022	935D1E223*	.18	.53	24	935D1F223*	.25	.69	24
.033	935D1E333*	.22	.53	24	935D1F333*	.29	.69	24
.047	935D1E473*	.26	.53	24	935D1F473*	.34	.69	22
.068	935D1E683*	.31	.53	24	935D1F683*	.32	.95	22
.082	935D1E823*	.28	.65	24	935D1F823*	.34	.95	22
.10	935D1E104*	.30	.65	22	935D1F104*	.37	.95	22
.15	935D1E154*	.37	.65	22	935D1F154*	.45	.95	22
.22	935D1E224*	.39	.78	22	935D1F224*	.46	1.21	20
.33	935D1E334*	.48	.78	20	935D1F334*	.55	1.21	20
.47	935D1E474*	.43	1.15	20	935D1F474*	.65	1.21	20
.68	935D1E684*	.49	1.15	20	935D1F684*	.63	1.71	20
.82	935D1E824*	.55	1.15	20	935D1F824*	.69	1.71	20
1.0	935D1E105*	.54	1.40	20	935D1F105*	.75	1.71	20
2.0	935D1E205*	.68	1.65	20	935D1F205*	.96	1.96	20
5.0	935D1E505*	.98	1.90	20	935D1F505*	1.24	2.71	20
10.0	935D1E106*	1.38	1.90	20	935D1F106*	-	-	-
15.0	935D1E156*	-	-	-	935D1F156*	-	-	-
20.0	935D1E206*	-	-	-	935D1F206*	-	-	-

\*Add tolerance designator to complete part number: F = ±1%, G = ±2%, J = ±5%, K = ±10%, M = ±20%