

057—Standard, 157—High Vibration*

Type 057 capacitors are the commercial equivalent to MIL-C39018/03 (CU17) types and are ideal for high reliability, long life, high temperature and high vibration applications.

Capacitance: 12 to 33,000µF, -10% +75%

Voltage: 6.3 to 250Vdc

Operating Temperature: -55°C to +105°C

Life Test: 2,000 hours @ +105°C

Shelf Test: 1,000 hours @ +105°C

Vibration: 10g

DCL: ≤0.002 CV µA @ +25°C

≤0.012 CV µA @ +105°C

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Cap. µF	Catalog Number*	ESR Max Ω		Ripple A		Nominal Size (in.) D x L
		120 Hz	20kHz	120Hz	20kHz	

Cap. µF	Catalog Number*	ESR Max Ω		Ripple A		Nominal Size (in.) D x L
		120 Hz	20kHz	120Hz	20kHz	

6.3Vdc - 8Vdc Surge

1,500	057152U6R3FE2	0.400	0.153	0.95	1.4	5/8 x 1 1/8
2,200	057222U6R3GE2	0.260	0.107	1.20	1.7	3/4 x 1 1/8
2,700	057272U6R3FJ2	0.200	0.080	1.60	2.3	5/8 x 1 5/8
3,300	057332U6R3HE2	0.180	0.073	1.50	2.1	7/8 x 1 1/8
4,700	057472U6R3FL2	0.130	0.052	2.30	3.2	5/8 x 2 1/8
4,700	057472U6R3GJ2	0.130	0.053	2.00	2.7	3/4 x 1 5/8
5,600	057562U6R3FP2	0.098	0.039	3.00	4.1	5/8 x 2 5/8
6,800	057682U6R3GL2	0.088	0.035	2.90	3.9	3/4 x 2 1/8
6,800	057682U6R3HJ2	0.093	0.039	2.60	3.4	7/8 x 1 5/8
10,000	057103U6R3JJ2	0.073	0.033	3.10	3.9	1 x 1 5/8
10,000	057103U6R3GP2	0.067	0.028	3.70	4.9	3/4 x 2 5/8
12,000	057123U6R3GS2	0.055	0.023	4.40	5.7	3/4 x 3 1/8
12,000	057123U6R3HL2	0.062	0.027	3.60	4.7	7/8 x 2 1/8
15,000	057153U6R3JL2	0.049	0.022	4.30	5.3	1 x 2 1/8
15,000	057153U6R3HP2	0.048	0.021	4.60	5.8	7/8 x 2 5/8
18,000	057183U6R3HS2	0.040	0.018	5.50	6.7	7/8 x 3 1/8
22,000	057223U6R3JP2	0.038	0.018	5.40	6.5	1 x 2 5/8
27,000	057273U6R3JS2	0.033	0.015	6.30	7.4	1 x 3 1/8
33,000	057333U6R3JT2	0.029	0.015	7.10	8.2	1 x 3 5/8

7.5Vdc - 9Vdc Surge

1,200	057122U7R5FE2	0.410	0.153	0.94	1.4	5/8 x 1 1/8
1,800	057182U7R5GE2	0.270	0.107	1.20	1.7	3/4 x 1 1/8
2,700	057272U7R5FJ2	0.210	0.080	1.60	2.3	5/8 x 1 5/8
3,300	057332U7R5HE2	0.190	0.073	1.50	2.1	7/8 x 1 1/8
3,900	057392U7R5FL2	0.130	0.052	2.30	3.2	5/8 x 2 1/8
3,900	057392U7R5GJ2	0.140	0.053	2.00	2.7	3/4 x 1 5/8
5,600	057562U7R5FP2	0.100	0.039	2.90	4.1	5/8 x 2 5/8
5,600	057562U7R5GL2	0.089	0.035	2.80	3.9	3/4 x 2 1/8
5,600	057562U7R5HJ2	0.095	0.039	2.50	3.4	7/8 x 1 5/8
8,200	057822U7R5JJ2	0.075	0.033	3.00	3.9	1 x 1 5/8
8,200	057822U7R5GP2	0.068	0.028	3.60	4.9	3/4 x 2 5/8
10,000	057103U7R5GS2	0.056	0.023	4.30	5.7	3/4 x 3 1/8
10,000	057103U7R5HL2	0.063	0.027	3.60	4.7	7/8 x 2 1/8
12,000	057123U7R5JL2	0.050	0.022	4.30	5.3	1 x 2 1/8
12,000	057123U7R5HP2	0.048	0.021	4.60	5.8	7/8 x 2 5/8
18,000	057183U7R5JP2	0.039	0.018	5.40	6.5	1 x 2 5/8
18,000	057183U7R5HS2	0.041	0.018	5.40	6.7	7/8 x 3 1/8
22,000	057223U7R5JS2	0.033	0.015	6.20	7.4	1 x 3 1/8
27,000	057273U7R5JT2	0.030	0.015	7.00	8.2	1 x 3 5/8

10Vdc - 12Vdc Surge

1,000	057102U010FE2	0.410	0.153	0.94	1.4	5/8 x 1 1/8
1,500	057152U010GE2	0.270	0.107	1.20	1.7	3/4 x 1 1/8
2,200	057222U010FJ2	0.210	0.080	1.60	2.3	5/8 x 1 5/8
2,700	057272U010HE2	0.190	0.073	1.50	2.1	7/8 x 1 1/8
3,300	057332U010FL2	0.130	0.052	2.30	3.2	5/8 x 2 1/8
3,300	057332U010GJ2	0.140	0.053	2.00	2.7	3/4 x 1 5/8

10Vdc - 12Vdc Surge (continued)

4,700	057472U010FP2	0.100	0.039	2.90	4.1	5/8 x 2 5/8
4,700	057472U010GL2	0.089	0.035	2.80	3.9	3/4 x 2 1/8
4,700	057472U010HJ2	0.095	0.039	2.50	3.4	7/8 x 1 5/8
6,800	057682U010JJ2	0.075	0.033	3.00	3.9	1 x 1 5/8
6,800	057682U010GP2	0.068	0.028	3.60	4.9	3/4 x 2 5/8
8,200	057822U010GS2	0.056	0.023	4.30	5.7	3/4 x 3 1/8
8,200	057822U010HL2	0.063	0.027	3.60	4.7	7/8 x 2 1/8
10,000	057103U010HP2	0.048	0.021	4.60	5.8	7/8 x 2 5/8
12,000	057123U010JL2	0.050	0.022	4.30	5.3	1 x 2 1/8
15,000	057153U010JP2	0.039	0.018	5.40	6.5	1 x 2 5/8
15,000	057153U010HS2	0.041	0.018	5.40	6.7	7/8 x 3 1/8
18,000	057183U010JS2	0.033	0.015	6.20	7.4	1 x 3 1/8
22,000	057223U010JT2	0.030	0.015	7.00	8.2	1 x 3 5/8

16Vdc - 20Vdc Surge

820	057821U016FE2	0.410	0.153	0.94	1.4	5/8 x 1 1/8
1,200	057122U016GE2	0.270	0.107	1.20	1.6	3/4 x 1 1/8
1,800	057182U016FJ2	0.210	0.080	1.60	2.3	5/8 x 1 5/8
2,200	057222U016HE2	0.190	0.073	1.50	2.1	7/8 x 1 1/8
2,700	057272U016FL2	0.130	0.052	2.30	3.2	5/8 x 2 1/8
2,700	057272U016GJ2	0.140	0.054	2.00	2.7	3/4 x 1 5/8
3,900	057392U016FP2	0.100	0.040	2.90	4.1	5/8 x 2 5/8
3,900	057392U016GL2	0.089	0.036	2.80	3.9	3/4 x 2 1/8
3,900	057392U016HJ2	0.095	0.039	2.50	3.4	7/8 x 1 5/8
5,600	057562U016JJ2	0.075	0.033	3.00	3.9	1 x 1 5/8
5,600	057562U016GP2	0.068	0.028	3.60	4.8	3/4 x 2 5/8
6,800	057682U016GS2	0.056	0.023	4.30	5.7	3/4 x 3 1/8
6,800	057682U016HL2	0.063	0.027	3.60	4.7	7/8 x 2 1/8
8,200	057822U016JL2	0.050	0.022	4.30	5.3	1 x 2 1/8
8,200	057822U016HP2	0.048	0.021	4.60	5.8	7/8 x 2 5/8
12,000	057123U016JP2	0.039	0.018	5.40	6.5	1 x 2 5/8
12,000	057123U016HS2	0.041	0.018	5.40	6.7	7/8 x 3 1/8
15,000	057153U016JS2	0.033	0.016	6.20	7.4	1 x 3 1/8
18,000	057183U016JT2	0.030	0.015	7.00	8.2	1 x 3 5/8

25Vdc - 35Vdc Surge

390	057391U025FE2	0.160	0.440	0.90	1.3	5/8 x 1 1/8
680	057681U025GE2	0.290	0.107	1.10	1.6	3/4 x 1 1/8
820	057821U025FJ2	0.220	0.080	1.50	2.2	5/8 x 1 5/8
1,000	057102U025HE2	0.200	0.080	1.50	2.0	7/8 x 1 1/8
1,200	057122U025FL2	0.140	0.053	2.20	3.2	5/8 x 2 1/8
1,200	057122U025GJ2	0.150	0.055	1.90	2.7	3/4 x 1 5/8
1,800	057182U025FP2	0.110	0.041	2.80	4.0	5/8 x 2 5/8
1,800	057182U025GL2	0.095	0.037	2.70	3.8	3/4 x 2 1/8
1,800	057182U025HJ2	0.100	0.040	2.40	3.3	7/8 x 1 5/8
2,700	057272U025JJ2	0.079	0.033	2.90	3.8	1 x 1 5/8
2,700	057272U025GP2	0.072	0.028	3.50	4.8	3/4 x 2 5/8
3,300	057332U025GS2	0.059	0.024	4.20	5.6	3/4 x 3 1/8
3,300	057332U025HL2	0.067	0.027	3.50	4.7	7/8 x 2 1/8
3,900	057392U025JL2	0.053	0.023	4.10	5.3	1 x 2 1/8

*For body grooves and 15g vibration capability, change catalog number from "057" to "157"

Cap. µF	Catalog Number*	ESR Max Ω		Ripple A		Nominal Size (in.) D x L
		120 Hz	20kHz	120Hz	20kHz	

Cap. µF	Catalog Number*	ESR Max Ω		Ripple A		Nominal Size (in.) D x L
		120 Hz	20kHz	120Hz	20kHz	

25Vdc - 35Vdc Surge (continued)

3,900	057392U025HP2	0.051	0.021	4.40	5.8	7/8 x 2 5/8
5,600	057562U025JP2	0.041	0.018	5.20	6.5	1 x 2 5/8
5,600	057562U025HS2	0.043	0.019	5.20	6.7	7/8 x 3 1/8
6,800	057682U025JS2	0.035	0.016	6.10	7.4	1 x 3 1/8
8,200	057822U025JT2	0.031	0.015	6.90	8.2	1 x 3 5/8

40Vdc - 55Vdc Surge

220	057221U040FE2	0.520	0.167	0.81	1.3	5/8 x 1 1/8
390	057391U040GE2	0.340	0.113	1.00	1.6	3/4 x 1 1/8
470	057471U040FJ2	0.260	0.087	1.40	2.2	5/8 x 1 5/8
560	057561U040HE2	0.230	0.080	1.30	2.0	7/8 x 1 1/8
820	057821U040FL2	0.170	0.055	2.00	3.1	5/8 x 2 1/8
820	057821U040GJ2	0.170	0.057	1.70	2.6	3/4 x 1 5/8
1,000	057102U040FP2	0.130	0.042	2.60	3.9	5/8 x 2 5/8
1,200	057122U040GL2	0.110	0.038	2.50	3.7	3/4 x 2 1/8
1,200	057122U040HJ2	0.120	0.041	2.20	3.3	7/8 x 1 5/8
1,800	057182U040JJ2	0.091	0.034	2.70	3.8	1 x 1 5/8
1,800	057182U040GP2	0.084	0.029	3.20	4.7	3/4 x 2 5/8
1,800	057182U040HL2	0.077	0.028	3.20	4.6	7/8 x 2 1/8
2,200	057222U040GS2	0.069	0.025	3.90	5.5	3/4 x 3 1/8
2,700	057272U040JL2	0.060	0.023	3.90	5.2	1 x 2 1/8
2,700	057272U040HP2	0.059	0.022	4.10	5.7	7/8 x 2 5/8
3,300	057332U040JP2	0.046	0.019	4.90	6.4	1 x 2 5/8
3,300	057332U040HS2	0.049	0.019	4.90	6.6	7/8 x 3 1/8
4,700	057472U040JS2	0.039	0.016	5.70	7.3	1 x 3 1/8
5,600	057562U040JT2	0.034	0.015	6.50	8.1	1 x 3 5/8

50Vdc - 70Vdc Surge

220	057221U050FE2	0.620	0.160	0.73	1.3	5/8 x 1 1/8
330	057331U050GE2	0.410	0.113	0.91	1.6	3/4 x 1 1/8
390	057391U050FJ2	0.310	0.080	1.20	2.2	5/8 x 1 5/8
470	057471U050HE2	0.280	0.080	1.20	1.9	7/8 x 1 1/8
560	057561U050GJ2	0.210	0.057	1.50	2.6	3/4 x 1 5/8
680	057681U050FL2	0.200	0.054	1.80	3.1	5/8 x 2 1/8
820	057821U050FP2	0.150	0.041	2.30	3.9	5/8 x 2 5/8
1,000	057102U050GL2	0.130	0.038	2.20	3.7	3/4 x 2 1/8
1,000	057102U050HJ2	0.140	0.043	2.00	3.1	7/8 x 1 5/8
1,200	057122U050GP2	0.100	0.029	2.90	4.6	3/4 x 2 5/8
1,500	057152U050JJ2	0.110	0.037	2.40	3.5	1 x 1 5/8
1,500	057152U050HL2	0.093	0.029	2.90	4.4	7/8 x 2 1/8
1,800	057182U050GS2	0.081	0.025	3.50	5.4	3/4 x 3 1/8
2,200	057222U050JL2	0.073	0.025	3.40	4.8	1 x 2 1/8
2,200	057222U050HP2	0.071	0.023	3.70	5.5	7/8 x 2 5/8
2,700	057272U050JP2	0.056	0.020	4.40	6.0	1 x 2 5/8
2,700	057272U050HS2	0.058	0.019	4.40	6.4	7/8 x 3 1/8
3,900	057392U050JS2	0.047	0.017	5.20	6.9	1 x 3 1/8
4,700	057472U050JT2	0.041	0.016	5.90	7.7	1 x 3 5/8

100Vdc - 135Vdc Surge

47	057470U100FE2	1.30	0.400	0.50	0.8	5/8 x 1 1/8
82	057820U100GE2	0.850	0.260	0.63	1.0	3/4 x 1 1/8
100	057101U100FJ2	0.660	0.200	0.84	1.3	5/8 x 1 5/8
120	057121U100HE2	0.570	0.180	0.84	1.3	7/8 x 1 1/8
150	057151U100FL2	0.420	0.127	1.20	2.0	5/8 x 2 1/8
150	057151U100GJ2	0.430	0.133	1.10	1.7	3/4 x 1 5/8
220	057221U100FP2	0.310	0.093	1.60	2.5	5/8 x 2 5/8
270	057271U100GL2	0.280	0.087	1.60	2.4	3/4 x 2 1/8
270	057271U100HJ2	0.290	0.093	1.40	2.2	7/8 x 1 5/8
330	057331U100JJ2	0.210	0.073	1.80	2.6	1 x 1 5/8
330	057331U100GP2	0.200	0.065	2.00	3.1	3/4 x 2 5/8
390	057391U100HL2	0.190	0.060	2.10	3.1	7/8 x 2 1/8
470	057471U100GS2	0.160	0.053	2.50	3.8	3/4 x 3 1/8
560	057561U100JL2	0.140	0.047	2.50	3.7	1 x 2 1/8
560	057561U100HP2	0.140	0.045	2.70	4.0	7/8 x 2 5/8

100Vdc - 135Vdc Surge (continued)

680	057681U100JP2	0.100	0.037	3.30	4.6	1 x 2 5/8
680	057681U100HS2	0.110	0.037	3.30	4.7	7/8 x 3 1/8
1,000	057102U100JS2	0.085	0.030	3.90	5.5	1 x 3 1/8
1,200	057122U100JT2	0.072	0.027	4.60	6.3	1 x 3 5/8

200Vdc - 250Vdc Surge

18	057180U200FE2	4.50	2.27	0.29	0.4	5/8 x 1 1/8
27	057270U200GE2	2.90	1.47	0.37	0.5	3/4 x 1 1/8
33	057330U200FJ2	2.20	1.13	0.49	0.6	5/8 x 1 5/8
39	057390U200HE2	1.90	0.933	0.50	0.6	7/8 x 1 1/8
56	057560U200FL2	1.40	0.733	0.73	0.9	5/8 x 2 1/8
56	057560U200GJ2	1.40	0.733	0.63	0.8	3/4 x 1 5/8
68	057680U200FP2	1.00	0.527	0.95	1.1	5/8 x 2 5/8
82	057820U200GL2	0.910	0.460	0.93	1.1	3/4 x 2 1/8
82	057820U200HJ2	0.940	0.473	0.85	1.0	7/8 x 1 5/8
120	057121U200JJ2	0.680	0.347	1.10	1.3	1 x 1 5/8
120	057121U200GP2	0.670	0.340	1.20	1.5	3/4 x 2 5/8
120	057121U200HL2	0.600	0.307	1.20	1.5	7/8 x 2 1/8
150	057151U200GS2	0.530	0.273	1.50	1.8	3/4 x 3 1/8
180	057181U200JL2	0.430	0.220	1.60	1.9	1 x 2 1/8
180	057181U200HP2	0.440	0.227	1.60	1.9	7/8 x 2 5/8
220	057221U200HS2	0.350	0.180	2.00	2.4	7/8 x 3 1/8
270	057271U200JP2	0.320	0.167	2.00	2.4	1 x 2 5/8
330	057331U200JS2	0.260	0.133	2.50	2.9	1 x 3 1/8
390	057391U200JT2	0.210	0.107	2.90	3.4	1 x 3 5/8

250Vdc - 300Vdc Surge

12	057120U250FE2	5.20	2.33	0.26	0.3	5/8 x 1 1/8
22	057220U250GE2	3.30	1.53	0.34	0.4	3/4 x 1 1/8
27	057270U250FJ2	2.60	1.20	0.45	0.6	5/8 x 1 5/8
33	057330U250HE2	2.20	1.00	0.46	0.6	7/8 x 1 1/8
39	057390U250FL2	1.70	0.733	0.66	0.9	5/8 x 2 1/8
39	057390U250GJ2	1.70	0.733	0.57	0.7	3/4 x 1 5/8
56	057560U250FP2	1.20	0.553	0.86	1.1	5/8 x 2 5/8
68	057680U250GL2	1.10	0.487	0.84	1.1	3/4 x 2 1/8
68	057680U250HJ2	1.10	0.500	0.77	1.0	7/8 x 1 5/8
82	057820U250JJ2	0.790	0.360	0.98	1.2	1 x 1 5/8
82	057820U250GP2	0.790	0.353	1.10	1.4	3/4 x 2 5/8
100	057101U250HL2	0.700	0.320	1.10	1.4	7/8 x 2 1/8
120	057121U250GS2	0.620	0.280	1.40	1.7	3/4 x 3 1/8
150	057151U250JL2	0.510	0.233	1.40	1.8	1 x 2 1/8
150	057151U250HP2	0.520	0.233	1.50	1.9	7/8 x 2 5/8
180	057181U250JP2	0.370	0.173	1.90	2.3	1 x 2 5/8
180	057181U250HS2	0.410	0.187	1.80	2.3	7/8 x 3 1/8
220	057221U250JS2	0.300	0.140	2.30	2.8	1 x 3 1/8
270	057271U250JT2	0.250	0.113	2.70	3.3	1 x 3 5/8

*For body grooves and 15g vibration capability, change catalog number from "057" to "157"

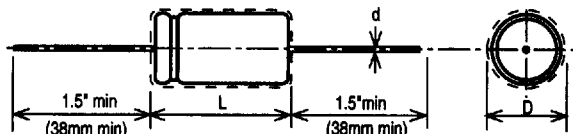
Technical details on Type 057 capacitors are shown on the next page (24).

Ordering Information for Type 057

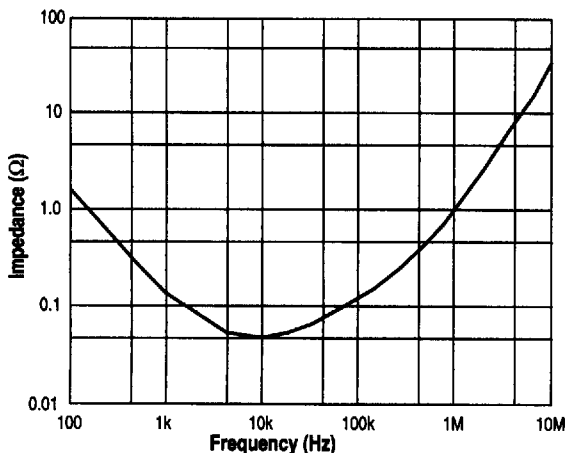
057 120 U 250 EE 2 E

Type: 057 or 157-----|
 Capacitance: 6R8 = 6.8µF; 120 = 12µF;-----|
 681 = 680µF; 682 = 6800µF
 Tolerance: U = -10% + 75%; T = -10% + 50%;-----|
 S = -10% + 30%
 Voltage: 6R3 = 6.3Vdc; 063 = 63Vdc; 250 = 250Vdc-----|
 Case Code: See table (below left)-----|
 Insulation: 0 = Bare Can; 1 = Polyester; 2 + PVC-----|
 Epoxy End Seal: E = epoxy; blank = no epoxy-----|

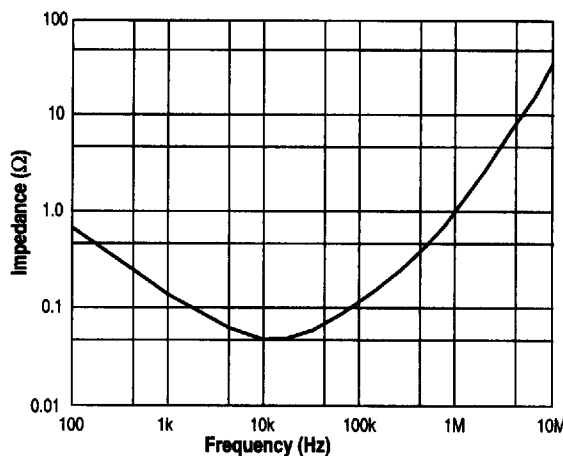
Case Code	Inches		mm		Case Code	Inches		mm	
	D±.016	L max	D±.397	L max		D±.016	L max	D±.397	L max
EE	.510	1.250	12.95	31.75	GS	.760	3.250	19.30	82.55
EG	.510	1.500	12.95	38.10	GT	.760	3.750	19.30	95.25
EJ	.510	1.750	12.95	44.45	HE	.885	1.250	22.48	31.75
EL	.510	2.250	12.95	57.15	HJ	.885	1.750	22.48	44.45
FE	.635	1.250	16.13	31.75	HL	.885	2.250	22.48	57.15
FJ	.635	1.750	16.13	44.45	HP	.885	2.750	22.48	69.85
FL	.635	2.250	16.13	57.15	HS	.885	3.250	22.48	82.55
FP	.635	2.750	16.13	69.85	HT	.885	3.750	22.48	95.25
FS	.635	3.250	16.13	82.55	JJ	1.010	1.750	25.65	44.45
FT	.635	3.750	16.13	95.25	JL	1.010	2.250	25.65	44.45
GE	.760	1.250	19.30	31.75	JP	1.010	2.750	25.65	57.15
GJ	.760	1.750	19.30	44.45	JS	1.010	3.250	25.65	69.85
GL	.760	2.250	19.30	57.15	JT	1.010	3.75	25.65	82.55
GP	.760	2.750	19.30	69.85					



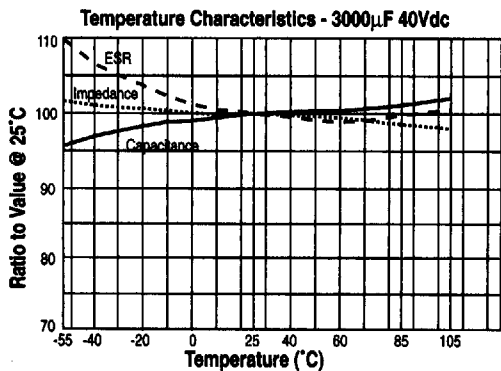
Insulated-Case Dimensions, Add 0.063" (1.6 mm) to L for epoxy end seal
 d = 20 AWG for D < 0.75"; 18 AWG for D ≥ 0.75"



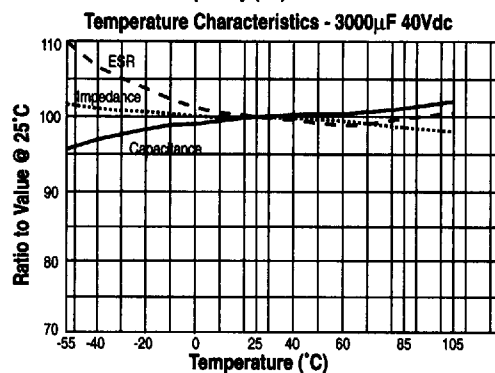
Type 057
Impedance vs
Frequency
3000µF 40Vdc



Type 057
Impedance vs
Frequency
7000µF 20V



Type 057
Temperature
Characteristics
3000µF 40Vdc



Type 057
Temperature
Characteristics
7000µF 20V