

MEK Series

Features

- Endurance with ripple current: 85°C, 5,000 hours
- RoHS Compliance

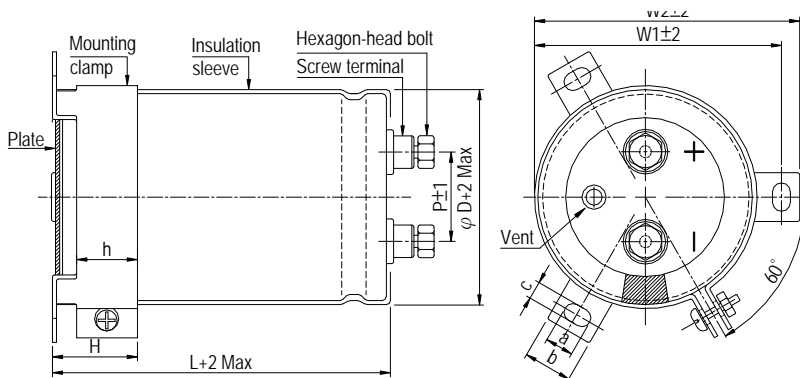


Sleeve & Marking Color: Black & Golden

Specifications

Items	Performance												
Category Temperature Range	-40°C ~ +85°C												
Capacitance Tolerance	±20% (at 120Hz, 20°C)												
Leakage Current (at 20°C)	$I = 3\sqrt{CV}$ or 5 (mA) whichever is smaller (after 5 minutes) Where, C= rated capacitance in µF. V = rated DC working voltage in V.												
Dissipation Factor (Tanδ at 120 Hz, 20°C)	See the Dimensions & Permissible Ripple Current												
Low Temperature Characteristics (at 120Hz)	Capacitance change : $C(-25°C) / C(+20°C) \geq 0.7$												
Endurance	<table border="1"> <tr> <td>Test Time</td> <td>5,000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±15% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 175% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table> <p>* The above Specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with rated ripple current applied for 5,000 hours at 85°C.</p>	Test Time	5,000 Hrs	Capacitance Change	Within ±15% of initial value	Dissipation Factor	Less than 175% of specified value	Leakage Current	Within specified value				
Test Time	5,000 Hrs												
Capacitance Change	Within ±15% of initial value												
Dissipation Factor	Less than 175% of specified value												
Leakage Current	Within specified value												
Shelf Life Test	<table border="1"> <tr> <td>Test Time</td> <td>1,000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table> <p>* The above Specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°C without voltage applied. The rated voltage shall be applied to the capacitors before the measurements (Refer to JIS C 5101-4 4.1).</p>	Test Time	1,000 Hrs	Capacitance Change	Within ±20% of initial value	Dissipation Factor	Less than 200% of specified value	Leakage Current	Within specified value				
Test Time	1,000 Hrs												
Capacitance Change	Within ±20% of initial value												
Dissipation Factor	Less than 200% of specified value												
Leakage Current	Within specified value												
Ripple Current & Frequency Multipliers	<table border="1"> <tr> <td>Frequency (Hz)</td> <td>50 / 60</td> <td>100 / 120</td> <td>300</td> <td>1k</td> <td>10k up</td> </tr> <tr> <td>Multiplier</td> <td>0.7</td> <td>1.0</td> <td>1.1</td> <td>1.3</td> <td>1.4</td> </tr> </table>	Frequency (Hz)	50 / 60	100 / 120	300	1k	10k up	Multiplier	0.7	1.0	1.1	1.3	1.4
Frequency (Hz)	50 / 60	100 / 120	300	1k	10k up								
Multiplier	0.7	1.0	1.1	1.3	1.4								
Ripple Current & Temperature Multipliers	<table border="1"> <tr> <td>Temperature (°C)</td> <td>40</td> <td>60</td> <td>85</td> </tr> <tr> <td>Multiplier</td> <td>1.89</td> <td>1.67</td> <td>1.0</td> </tr> </table>	Temperature (°C)	40	60	85	Multiplier	1.89	1.67	1.0				
Temperature (°C)	40	60	85										
Multiplier	1.89	1.67	1.0										
Failure percentage	≤ 3 % (During useful life)												
Failure rate	≤ 70 fit (70 10 ⁻⁹ /h)												

Diagram of Dimensions



Unit: mm

φD	P	W1	W2	H	h	a	b	c
51	22.0	61.0	65.5	21.0	15.0	7.0	12.0	4.5
64	28.6	72.5	78.0	25.0	20.0	7.0	14.0	4.5
77	32.0	85.5	91.0	35.0	20.0	8.0	16.0	4.5
90	32.0	101	106	34.5	20.0	8.0	16.0	5.0

Screw Specifications:
Plus hexagon-headed screw: M5×0.8×10
Max. screw tightening torque: 3.23Nm



Dimension & Permissible Ripple Current

Working Voltage V. DC	Capacitance 120Hz, 20°C μF	φ D×L mm	Ripple Current 120 Hz, 85°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C mΩ	LC 5 minutes mA	Part Number
350	1,000	51 × 60	4.5	0.15	199	1.77	MEK102M2V--B060
	1,200	51 × 70	5.3	0.15	166	1.94	MEK122M2V--B070
	1,200	51 × 75	5.5	0.15	166	1.94	MEK122M2V--B075
	1,200	51 × 83	5.7	0.15	166	1.94	MEK122M2V--B083
	1,500	51 × 75	6.1	0.15	133	2.17	MEK152M2V--B075
	1,500	51 × 83	6.3	0.15	133	2.17	MEK152M2V--B083
	1,800	51 × 96	7.4	0.15	111	2.38	MEK182M2V--B096
	2,200	51 × 96	8.2	0.15	90.4	2.63	MEK222M2V--B096
	2,700	51 × 115	9.8	0.15	73.7	2.92	MEK272M2V--B115
	2,700	51 × 130	10.2	0.15	73.7	2.92	MEK272M2V--B130
	2,700	64 × 85	9.3	0.15	73.7	2.92	MEK272M2V--C085
	3,300	51 × 130	11.3	0.15	60.3	3.22	MEK332M2V--B130
	3,300	64 × 96	10.8	0.15	60.3	3.22	MEK332M2V--C096
	3,900	64 × 115	12.8	0.15	51.0	3.50	MEK392M2V--C115
	3,900	77 × 85	12.0	0.15	51.0	3.50	MEK392M2V--D085
	4,700	64 × 115	14.0	0.15	42.3	3.85	MEK472M2V--C115
	4,700	64 × 130	14.8	0.15	42.3	3.85	MEK472M2V--C130
	4,700	77 × 90	13.5	0.15	42.3	3.85	MEK472M2V--D090
	5,600	64 × 155	17.3	0.15	35.5	4.20	MEK562M2V--C155
	5,600	77 × 100	15.4	0.15	35.5	4.20	MEK562M2V--D100
	5,600	77 × 115	16.3	0.15	35.5	4.20	MEK562M2V--D115
	6,800	77 × 130	18.8	0.15	29.3	4.63	MEK682M2V--D130
	8,200	64 × 190	22.1	0.15	24.3	5.00	MEK822M2V--C190
	8,200	77 × 155	22.1	0.15	24.3	5.00	MEK822M2V--D155
	8,200	90 × 120	20.2	0.15	24.3	5.00	MEK822M2V--E120
	10,000	77 × 170	25.7	0.15	19.9	5.00	MEK103M2V--D170
	10,000	90 × 140	24.7	0.15	19.9	5.00	MEK103M2V--E140
	10,000	90 × 157	25.9	0.15	19.9	5.00	MEK103M2V--E157
	12,000	90 × 150	27.6	0.15	16.6	5.00	MEK123M2V--E150
	12,000	90 × 155	28.0	0.15	16.6	5.00	MEK123M2V--E155
	12,000	90 × 157	28.4	0.15	16.6	5.00	MEK123M2V--E157
	15,000	90 × 190	25.0	0.15	13.3	5.00	MEK153M2V--E190
15,000	90 × 196	34.6	0.15	13.3	5.00	MEK153M2V--E196	
18,000	90 × 236	41.4	0.15	11.1	5.00	MEK183M2V--E236	
400	1,000	51 × 65	4.7	0.15	199	1.90	MEK102M2G--B065
	1,000	51 × 75	5.0	0.15	199	1.90	MEK102M2G--B075
	1,000	51 × 83	5.2	0.15	199	1.90	MEK102M2G--B083
	1,200	51 × 75	5.5	0.15	166	2.08	MEK122M2G--B075
	1,200	51 × 83	5.7	0.15	166	2.08	MEK122M2G--B083
	1,500	51 × 96	6.7	0.15	133	2.32	MEK152M2G--B096
	1,800	51 × 96	7.4	0.15	111	2.55	MEK182M2G--B096
	2,200	51 × 115	8.9	0.15	90.4	2.81	MEK222M2G--B115
	2,200	51 × 130	9.2	0.15	90.4	2.81	MEK222M2G--B130
	2,200	64 × 85	8.5	0.15	90.4	2.81	MEK222M2G--C085
	2,700	51 × 130	10.4	0.15	73.7	3.12	MEK272M2G--B130
	2,700	64 × 96	9.9	0.15	73.7	3.12	MEK272M2G--C096
	2,700	77 × 75	9.4	0.15	73.7	3.12	MEK272M2G--D075
	3,300	64 × 96	11.0	0.15	60.3	3.45	MEK332M2G--C096
	3,300	64 × 115	11.8	0.15	60.3	3.45	MEK332M2G--C115
	3,300	77 × 90	11.2	0.15	60.3	3.45	MEK332M2G--D090
	3,900	64 × 115	12.8	0.15	51.0	3.75	MEK392M2G--C115
	3,900	64 × 130	13.5	0.15	51.0	3.75	MEK392M2G--C130
	3,900	77 × 96	12.5	0.15	51.0	3.75	MEK392M2G--D096
	4,700	64 × 130	14.8	0.15	42.3	4.11	MEK472M2G--C130
	4,700	64 × 155	15.9	0.15	42.3	4.11	MEK472M2G--C155
	4,700	77 × 110	14.5	0.15	42.3	4.11	MEK472M2G--D110
	4,700	77 × 115	14.9	0.15	42.3	4.11	MEK472M2G--D115
	5,600	64 × 155	16.6	0.15	35.5	4.49	MEK562M2G--C155
	5,600	64 × 190	18.3	0.15	35.5	4.49	MEK562M2G--C190
	5,600	64 × 195	19.1	0.15	35.5	4.49	MEK562M2G--C195
	5,600	77 × 115	16.2	0.15	35.5	4.49	MEK562M2G--D115
	5,600	77 × 130	17.0	0.15	35.5	4.49	MEK562M2G--D130
	6,800	64 × 190	20.1	0.15	29.3	4.95	MEK682M2G--C190
	6,800	77 × 130	18.8	0.15	29.3	4.95	MEK682M2G--D130
	6,800	77 × 155	20.2	0.15	29.3	4.95	MEK682M2G--D155
	6,800	90 × 120	19.3	0.15	29.3	4.95	MEK682M2G--E120



Dimension & Permissible Ripple Current

Working Voltage V _{DC}	Capacitance 120Hz, 20°C μF	φ D×L mm	Ripple Current 120 Hz, 85°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C mΩ	LC 5 minutes mA	Part Number
400	8,200	77 × 155	22.3	0.15	24.3	5.00	MEK822M2G--D155
	8,200	77 × 170	23.2	0.15	24.3	5.00	MEK822M2G--D170
	8,200	90 × 157	23.5	0.15	24.3	5.00	MEK822M2G--E157
	10,000	77 × 195	27.3	0.15	19.9	5.00	MEK103M2G--D195
	10,000	90 × 155	25.8	0.15	19.9	5.00	MEK103M2G--E155
	10,000	90 × 157	25.9	0.15	19.9	5.00	MEK103M2G--E157
	12,000	90 × 157	28.2	0.15	16.6	5.00	MEK123M2G--E157
	12,000	90 × 170	29.2	0.15	16.6	5.00	MEK123M2G--E170
	12,000	90 × 155	28.0	0.15	16.6	5.00	MEK123M2G--E155
	12,000	90 × 196	31.0	0.15	16.6	5.00	MEK123M2G--E196
	15,000	90 × 196	34.4	0.15	13.3	5.00	MEK153M2G--E196
	15,000	90 × 190	34.0	0.15	13.3	5.00	MEK153M2G--E190
	15,000	90 × 236	37.5	0.15	13.3	5.00	MEK153M2G--E236
	18,000	90 × 236	41.0	0.15	11.1	5.00	MEK183M2G--E236
	450	1,000	51 × 75	5.0	0.15	199	2.01
1,000		51 × 83	5.2	0.15	199	2.01	MEK102M2W--B083
1,200		51 × 96	6.0	0.15	166	2.20	MEK122M2W--B096
1,500		51 × 96	6.7	0.15	133	2.46	MEK152M2W--B096
1,500		51 × 115	7.2	0.15	133	2.46	MEK152M2W--B115
1,800		51 × 130	8.3	0.15	111	2.70	MEK182M2W--B130
2,200		64 × 96	9.0	0.15	90.4	2.98	MEK222M2W--C096
2,700		64 × 115	10.7	0.15	73.7	3.31	MEK272M2W--C115
3,300		64 × 130	12.4	0.15	60.3	3.66	MEK332M2W--C130
3,300		77 × 100	11.8	0.15	60.3	3.66	MEK332M2W--D100
3,900		64 × 155	14.4	0.15	51.0	3.97	MEK392M2W--C155
3,900		77 × 110	13.4	0.15	51.0	3.97	MEK392M2W--D110
3,900		77 × 115	13.6	0.15	51.0	3.97	MEK392M2W--D115
4,700		64 × 190	17.4	0.15	42.3	4.36	MEK472M2W--C190
4,700		64 × 195	17.5	0.15	42.3	4.36	MEK472M2W--C195
4,700		77 × 130	15.6	0.15	42.3	4.36	MEK472M2W--D130
5,600		64 × 190	19.0	0.15	35.5	4.76	MEK562M2W--C190
5,600		77 × 155	18.3	0.15	35.5	4.76	MEK562M2W--D155
5,600		90 × 120	17.3	0.15	35.5	4.76	MEK562M2W--E120
6,800		77 × 170	21.2	0.15	29.3	5.00	MEK682M2W--D170
6,800		90 × 125	19.4	0.15	29.3	5.00	MEK682M2W--E125
6,800		90 × 157	21.4	0.15	29.3	5.00	MEK682M2W--E157
8,200		90 × 155	23.4	0.15	24.3	5.00	MEK822M2W--E155
8,200		77 × 190	24.2	0.15	24.3	5.00	MEK822M2W--D190
8,200	90 × 157	23.5	0.15	24.3	5.00	MEK822M2W--E157	
10,000	90 × 170	26.7	0.15	19.9	5.00	MEK103M2W--E170	
10,000	90 × 196	28.3	0.15	19.9	5.00	MEK103M2W--E196	
12,000	90 × 236	33.6	0.15	16.6	5.00	MEK123M2W--E236	
500	1,000	51 × 96	5.5	0.20	265	2.12	MEK102M2H--B096
	1,000	51 × 100	5.6	0.20	265	2.12	MEK102M2H--B100
	1,000	64 × 80	5.8	0.20	265	2.12	MEK102M2H--C080
	1,200	51 × 115	6.6	0.20	221	2.32	MEK122M2H--B115
	1,200	64 × 85	6.5	0.20	221	2.32	MEK122M2H--C085
	1,200	64 × 96	6.9	0.20	221	2.32	MEK122M2H--C096
	1,500	51 × 130	7.8	0.20	177	2.60	MEK152M2H--B130
	1,500	64 × 90	7.5	0.20	177	2.60	MEK152M2H--C090
	1,500	64 × 96	7.7	0.20	177	2.60	MEK152M2H--C096
	1,800	64 × 105	8.3	0.20	147	2.85	MEK182M2H--C105
	1,800	64 × 115	8.6	0.20	147	2.85	MEK182M2H--C115
	2,200	64 × 115	8.9	0.20	121	3.15	MEK222M2H--C115
	2,200	64 × 121	9.1	0.20	121	3.15	MEK222M2H--C121
	2,200	64 × 130	9.4	0.20	121	3.15	MEK222M2H--C130
	2,700	77 × 110	9.8	0.20	98.2	3.49	MEK272M2H--D110
	2,700	77 × 115	9.9	0.20	98.2	3.49	MEK272M2H--D115
	3,300	77 × 115	9.9	0.20	80.4	3.85	MEK332M2H--D115
	3,300	77 × 130	10.4	0.20	80.4	3.85	MEK332M2H--D130
	3,900	77 × 150	11.0	0.20	68.0	4.19	MEK392M2H--D150
	3,900	77 × 155	11.0	0.20	68.0	4.19	MEK392M2H--D155
	3,900	90 × 120	11.9	0.20	68.0	4.19	MEK392M2H--E120
	4,700	77 × 170	12.7	0.20	56.4	4.60	MEK472M2H--D170
	4,700	90 × 130	13.5	0.20	56.4	4.60	MEK472M2H--E130



Dimension & Permissible Ripple Current

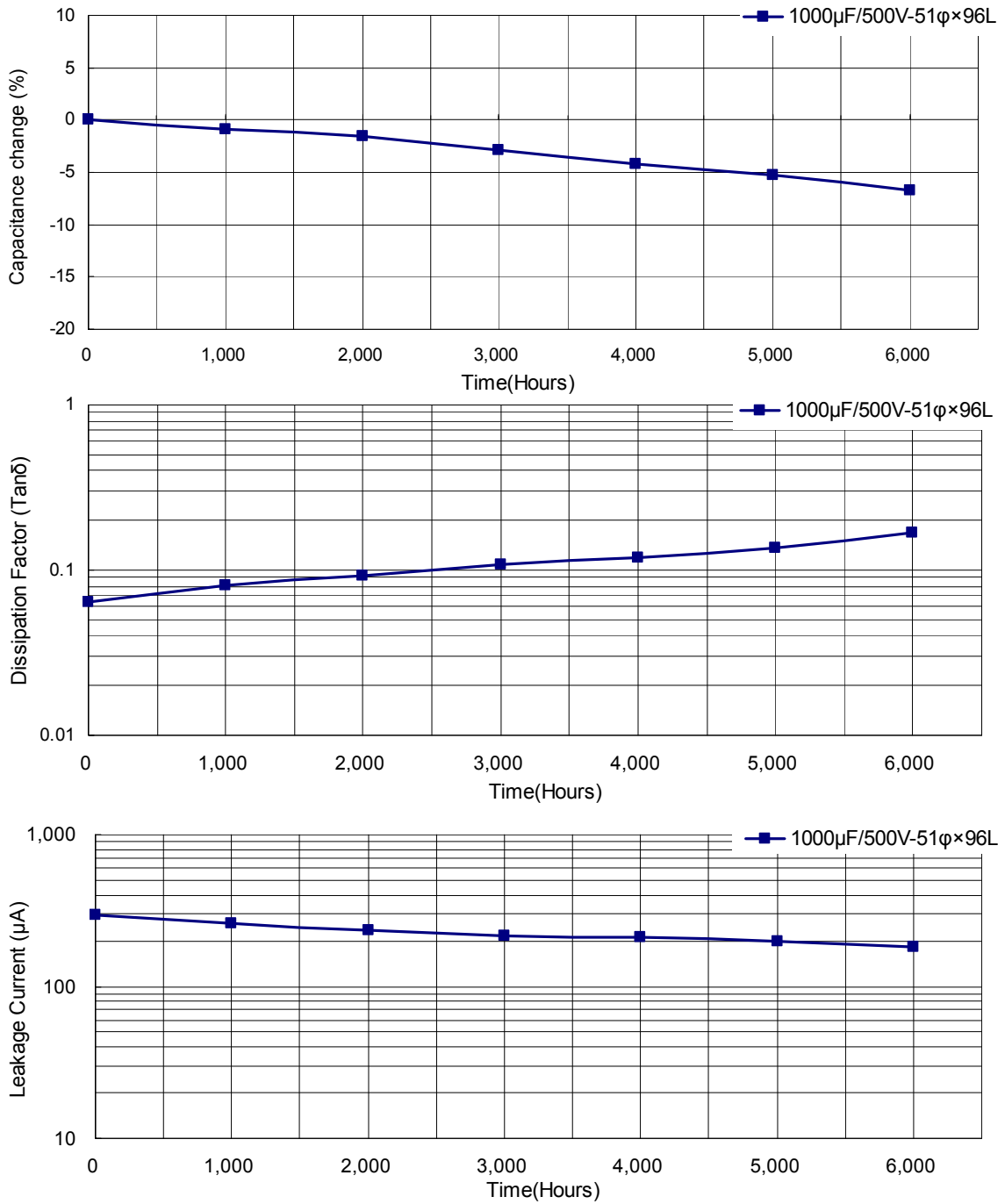
Working Voltage V. DC	Capacitance 120Hz, 20°C μF	φ D×L mm	Ripple Current 120 Hz, 85°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C mΩ	LC 5 minutes mA	Part Number
500	5,600	77 × 190	14.6	0.20	47.4	5.00	MEK562M2H--D190
	5,600	77 × 195	14.8	0.20	47.4	5.00	MEK562M2H--D195
	5,600	90 × 150	14.4	0.20	47.4	5.00	MEK562M2H--E150
	5,600	90 × 157	15.5	0.20	47.4	5.00	MEK562M2H--E157
	6,800	90 × 170	16.7	0.20	39.0	5.00	MEK682M2H--E170
	8,200	90 × 190	19.3	0.20	32.3	5.00	MEK822M2H--E190
	8,200	90 × 196	19.5	0.20	32.3	5.00	MEK822M2H--E196
525	1,000	51 × 115	6.7	0.20	265	2.17	MEK102M2Y--B115
	1,200	51 × 130	7.6	0.20	221	2.38	MEK122M2Y--B130
	1,200	64 × 96	7.5	0.20	221	2.38	MEK122M2Y--C096
	1,500	64 × 115	8.4	0.20	177	2.66	MEK152M2Y--C115
	1,800	64 × 130	9.1	0.20	147	2.92	MEK182M2Y--C130
	2,200	77 × 115	9.9	0.20	121	3.22	MEK222M2Y--D115
	2,700	77 × 130	10.5	0.20	98.2	3.57	MEK272M2Y--D130
	3,300	77 × 155	11.2	0.20	80.4	3.95	MEK332M2Y--D155
	3,900	90 × 157	12.1	0.20	68.0	4.29	MEK392M2Y--E157

Part Numbering System

MEK series	3300μF	±20%	350V	Plain case + Mounting clamp	M5 Post	51 φ × 130L	Pb-free Terminal + PVC Sleeve
MEK	332	M	2V	=	=	B130	
Series name	Capacitance	Capacitance tolerance	Rated voltage	Case Type	Terminal type	Case size	Terminal and Sleeve Type
Example:			Example:			Example:	
Cap.	Symbol		WV	Symbol		φ D×L	Code
1,000	102	M = ±20%	350	2V		64×130	C130
4,700	472	K = ±10%	400	2G		77×115	D115
10,000	103		450	2W		90×157	E157

Note: For more details, please refer to "Part Numbering System (Screw Type)" on page 14.

Typical Endurance Curves



Useful Life Chart

