

SINGLE-ENDED LEADS - Miniature 7mm height 105°C / 1000 h

■ Description

- Capacitors for high density printed circuit board

■ Applications


- Coupling, by-pass, filtering in portable micro computers, disk drivers, small calculators and audio equipments.

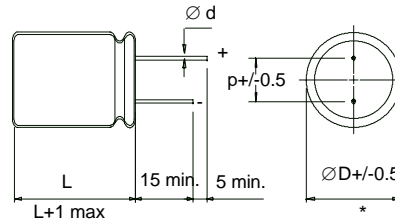
■ Diagram of dimensions (Unit = mm).

∅D	4.0	5.0	6.0	8.0
p (pitch)	1.5	2.0	2.5	3.5
∅d (leads)	0.45		0.5	

* Case ∅D 6.0 mm: D = +0.8/-0.5

■ Marking

- ARCOTRONICS' logo: 
- Series: (ESS)
- Rated capacitance: (μF)
- Rated voltage (Vdc)
- Operating temperature: (105°C)
- Negative polarity: white row



■ Electrical characteristics

Rated voltage	6.3 to 63 Vdc
Operating temperature	-40 to +105°C
Capacitance range	0.1μF to 220μF.
Capacitance tolerance	± 20% at 120 Hz / 20°C
Endurance test	1000 h (see conditions in Test method and performance)
Leakage current	I = 0.01 CV (μA) or 3 μA whichever is greater C = rated capacitance (μF); V = rated voltage (Vdc) (after that DC rated voltage at 20°C has been applied for 2 min)

■ Compensation factor of ripple current (R.C.) vs. frequency

Capacitance range	50 Hz	120 Hz	300 Hz	1 kHz	10 to 100 kHz
0.1 to 47μF	0.75	1.00	1.20	1.30	1.50
100 to 220μF	0.75	1.00	1.10	1.15	1.20

■ Compensation factor of ripple current (R.C.) vs. temperature

Temperature	40°C	65°C	85°C	105°C
Multiplier factors	1.90	1.70	1.30	1.00

■ Test method and performance

Load life test	
Test conditions	
Voltage:	the sum of D.C. voltage and the peak A.C. voltage must not exceed the rated voltage of the capacitor.
Ripple current:	max permissible ripple current at 120Hz 105°C specified in the table.
Temperature:	105°C
Test duration:	1000 hours
Performance	
The following specifications will be satisfied when the capacitors are restored at 20°C.	
Capacitance Change:	within 20% of initial value
Dissipation Factor:	not exceed 200% of initial requirement
Leakage Current:	not exceed initial requirement

Shelf life test	
Test conditions	
Voltage:	no voltage applied.
Temperature:	105°C
Test duration:	500 hours
Performance	
The following specifications will be satisfied when the capacitors are restored at 20°C.	
Capacitance Change:	within 20% of initial value
Dissipation Factor:	not exceed 200% of initial requirement
Leakage Current:	not exceed initial requirement

■ Technical data and ordering codes

6.3 Vdc Rated voltage - 8 Vdc Surge voltage					
Rated Cap. 120Hz 20°C (μF)	Case size D x L (mm)	D.F. 120Hz 25°C (tgδ %)	R.C. 120Hz 105°C (mA _{rms})	L.C. 20°C 2 min (μA)	Arcotronics P/N
22	4 x 7	24	37	3	ESS226M6R3AB2AA
33	5 x 7	24	42	3	ESS336M6R3AC2AA
47	5 x 7	24	55	3	ESS476M6R3AC2AA
100	5 x 7	24	75	6	ESS107M6R3AC2AA
100	6 x 7	24	90	6	ESS107M6R3AE2AA
220	6 x 7	24	130	14	ESS227M6R3AE2AA

10 Vdc Rated voltage - 13 Vdc Surge voltage					
Rated Cap. 120Hz 20°C (μF)	Case size D x L (mm)	D.F. 120Hz 25°C (tgδ %)	R.C. 120Hz 105°C (mA _{rms})	L.C. 20°C 2 min (μA)	Arcotronics P/N
22	4 x 7	20	31	3	ESS226M010AB2AA
22	5 x 7	20	38	3	ESS226M010AC2AA
33	4 x 7	20	39	3	ESS336M010AB2AA
33	5 x 7	20	47	3	ESS336M010AC2AA
47	5 x 7	20	60.	5	ESS476M010AC2AA
100	5 x 7	20	85	10	ESS107M010AC2AA
100	6 x 7	20	100	10	ESS107M010AE2AA
100	8 x 7	20	200	10	ESS107M010AG1AA
220	6 x 7	20	135	22	ESS227M010AE2AA

16 Vdc Rated voltage - 20 Vdc Surge voltage					
Rated Cap. 120Hz 20°C (μF)	Case size D x L (mm)	D.F. 120Hz 25°C (tgδ %)	R.C. 120Hz 105°C (mA _{rms})	L.C. 20°C 2 min (μA)	Arcotronics P/N
4.7	4 x 7	17	19	3	ESS475M016AB2AA
10	4 x 7	17	29	3	ESS106M016AB2AA
22	4 x 7	17	36	3	ESS226M016AB2AA
22	5 x 7	17	44	3	ESS226M016AC2AA
33	4 x 7	17	50	5	ESS336M016AB2AA
33	5 x 7	17	57	5	ESS336M016AC2AA
47	5 x 7	17	75	7	ESS476M016AC2AA
47	6 x 7	17	77	7	ESS476M016AE2AA
100	6 x 7	17	110	16	ESS107M016AE2AA
220	8 x 7	17	140	35	ESS227M016AG1AA

25 Vdc Rated voltage - 32 Vdc Surge voltage					
Rated Cap. 120Hz 20°C (μF)	Case size D x L (mm)	D.F. 120Hz 25°C (tgδ %)	R.C. 120Hz 105°C (mA _{rms})	L.C. 20°C 2 min (μA)	Arcotronics P/N
4.7	4 x 7	15	24	3	ESS475M025AB2AA
10	4 x 7	15	33	3	ESS106M025AB2AA
10	5 x 7	15	35	3	ESS106M025AC2AA
22	5 x 7	15	51	5	ESS226M025AC2AA
22	6 x 7	15	53	5	ESS226M025AE2AA
33	6 x 7	15	65	8	ESS336M025AE2AA
47	6 x 7	15	79	12	ESS476M025AE2AA
100	6 x 7	15	120	25	ESS107M025AE2AA

35 Vdc Rated voltage - 44 Vdc Surge voltage					
Rated Cap. 120Hz 20°C (μF)	Case size D x L (mm)	D.F. 120Hz 25°C (tgδ %)	R.C. 120Hz 105°C (mA _{rms})	L.C. 20°C 2 min (μA)	Arcotronics P/N
4.7	4 x 7	12	24	3	ESS475M035AB2AA
10	4 x 7	12	34	3	ESS106M035AB2AA
10	5 x 7	12	36	3	ESS106M035AC2AA
22	6 x 7	12	57	8	ESS226M035AE2AA
33	6 x 7	12	70	11	ESS336M035AE2AA
47	6 x 7	12	81	16	ESS476M035AE2AA

50 Vdc Rated voltage - 63 Vdc Surge voltage					
Rated Cap. 120Hz 20°C (μF)	Case size D x L (mm)	D.F. 120Hz 25°C (tgδ %)	R.C. 120Hz 105°C (mA _{rms})	L.C. 20°C 2 min (μA)	Arcotronics P/N
0.1	4 x 7	10	1	3	ESS104M050AB2AA
0.22	4 x 7	10	2	3	ESS224M050AB2AA
0.33	4 x 7	10	3	3	ESS334M050AB2AA
0.47	4 x 7	10	5	3	ESS474M050AB2AA
1.0	4 x 7	10	10	3	ESS105M050AB2AA
2.2	4 x 7	10	19	3	ESS225M050AB2AA
3.3	4 x 7	10	24	3	ESS335M050AB2AA
4.7	4 x 7	10	29	3	ESS475M050AB2AA
4.7	5 x 7	10	31	3	ESS475M050AC2AA
10	5 x 7	10	45	5	ESS106M050AC2AA
22	6 x 7	10	65	11	ESS226M050AE2AA

63 Vdc Rated voltage - 79 Vdc Surge voltage					
Rated Cap. 120Hz 20°C (μF)	Case size D x L (mm)	D.F. 120Hz 25°C (tgδ %)	R.C. 120Hz 105°C (mA _{rms})	L.C. 20°C 2 min (μA)	Arcotronics P/N
0.1	4 x 7	8	1	3	ESS104M063AB2AA
0.22	4 x 7	8	2	3	ESS224M063AB2AA
0.33	4 x 7	8	4	3	ESS334M063AB2AA
0.47	4 x 7	8	6	3	ESS474M063AB2AA
1.0	4 x 7	8	13	3	ESS105M063AB2AA
2.2	4 x 7	8	21	3	ESS225M063AB2AA
3.3	4 x 7	8	26	3	ESS335M063AB2AA
4.7	6 x 7	8	33	3	ESS475M063AE2AA
10	6 x 7	8	50	6	ESS106M063AE2AA