ULG Series

+105℃, High Ripple Current, Low ESR

Features

- High Ripple Current, Low ESR
- Wide Temperature Range
- RoHS Compliant

Applications

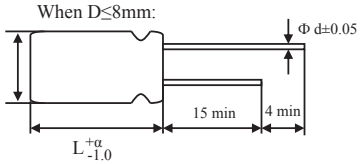
- Suitable for DC-DC Converters, Voltage Regulators, Decoupling Applications for Computer Motherboards, etc.

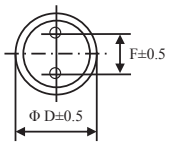
Specifications

Item	Performance Characteristics					
Operating Temperature Range	-55 to +105℃					
Rated Working Voltage Range	2.5VDC to 35VDC					
Surge Voltage, SV	SV=WVx1.15VDC (Normal temperature)					
Nominal Capacitance Range	10 to 1500μF (120Hz, +20℃)					
Capacitance Tolerance	±20% (120Hz, +20℃)					
tan δ	0.12 (120Hz, +20℃)					
Leakage Current, Lc	I≤0.2CV or 280 (μA) whichever is greater measured, after 2 minutes application of rated working voltage at +20℃					
Temperature Characteristics, Impedance Ratio	At -55℃ 100kHz (Low temperature)			Z/Z20℃≤1.25		
	At +105℃ 100kHz (High temperature)			Z/Z20℃≤1.25		
Frequency Coefficient for Allowable Ripple Current	Frequency	120Hz≤f<1kHz	1kHz≤f<10kHz	10kHz≤f<100kHz	100kHz≤f<500kHz	
	Coefficient	0.05	0.30	0.70	1.00	
Endurance	Test conditions +105℃, 2,000 hours Rated voltage applied	ΔC/C	Within ±20% of the initial measured value			
		tan δ	≤150% of the initial specified value			
		ESR	≤150% of the initial specified value			
		Lc	≤The initial specified value			
Damp Heat Test (Steady State)	Test conditions +60℃, 90% to 95% RH 1,000 hours No applied voltage	ΔC/C	Within ±20% of the initial measured value			
		tan δ	≤150% of the initial specified value			
		ESR	≤150% of the initial specified value			
		Lc	≤The initial specified value			
Surge Voltage Test	At normal temperature, charge at surge voltage for 30 sec, and discharge via a 1kΩ protective resistor for 330 sec. Repeat for 1,000 cycles.	ΔC/C	Within ±20% of the initial measured value			
		tan δ	≤150% of the initial specified value			
		ESR	≤150% of the initial specified value			
		Lc	≤The initial specified value			
Others	JIS-C-5101-4					

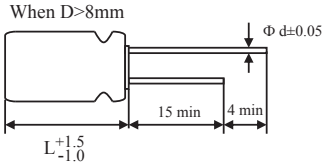
Dimensions

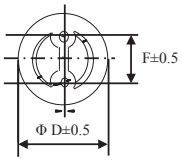
When D≤8mm:





When D>8mm





ULG Series

+105˚C, High Ripple Current, Low ESR

Size List

New Item | RV: Rated Voltage

RV / μF	Code	2.5 (0E)	4 (0G)	6.3 (0J)	10 (1A)	16 (1C)	20 (1D)	25 (1E)	35 (1V)
10	106								E08[6]
22	226							D08[6], E08	F08
33	336						E08	E08, F08	E08[6], F08
47	476						F08	D08[6], E06[6], F08	E06[6], F08, F1A
56	566							F08	
68	686						E11[6]		
100	107						F1A	E08[6], F1A, G1B	E11[6], F08, F1A, G1B
150	157						G1B	E11[6], F1A	
180	187					F1A		F1A	
220	227							F1A[6], G1B	F1A[6], G1B
270	277				F1A				
330	337					G1B		G1B	G1B
390	397			F1A			F1A[6]	G1B	
470	477				G1B			F1A[6], G1B	
560	567		F1A						
680	687	F1A		G1B			F16[6], G1A[6]	F16[6]	
820	827		G1B						
1500	158	G1B							

(Unit: mm)

Size Code	D08	E06	E08	E11	F08	F1A	F16	G1A	G1B
ΦDxL	5 x 8	6.3 x 6	6.3 x 8	6.3 x 11	8 x 8	8 x 11.5	8 x 16	10 x 11.5	10 x 12.5
F±0.5	2.0	2.5	2.5	2.5	3.5	3.5	3.5	5.0	5.0
Φd	0.6	0.45	0.6	0.6	0.6	0.6	0.6	0.6	0.6
α	1.0	1.0	1.0	1.5	1.0	1.5	1.5	1.5	1.5

ULG Series

+105˚C, High Ripple Current, Low ESR

Characteristics List

Rated Vol. (V)	Rated Cap. (μF)	Case Size ΦD x L (mm)	Size Code	Part Number	ESR (mΩ, max/ 20˚C, 100kHz)	Rated Ripple (mArms/ 105˚C, 100kHz)	DF (%max)	Leakage Current (μA/2 mins)
2.5	680	8 x 11.5	F1A	ULG687M0EF1A	10	5230	12	340
2.5	1500	10 x 12.5	G1B	ULG158M0EG1B	8	5500	12	750
4	560	8 x 11.5	F1A	ULG567M0GF1A	10	5230	12	448
4	820	10 x 12.5	G1B	ULG827M0GG1B	8	5500	12	656
6.3	390	8 x 11.5	F1A	ULG397M0JF1A	12	4770	12	491
6.3	680	10 x 12.5	G1B	ULG687M0JG1B	10	5500	12	857
10	270	8 x 11.5	F1A	ULG277M1AF1A	14	4420	12	540
10	470	10 x 12.5	G1B	ULG477M1AG1B	12	5300	12	940
16	180	8 x 11.5	F1A	ULG187M1CF1A	16	4360	12	576
16	330	10 x 12.5	G1B	ULG337M1CG1B	14	5050	12	1056
20	33	6.3 x 8	E08	ULG336M1DE08	45	1880	12	280
20	47	8 x 8	F08	ULG476M1DF08	42	1952	12	280
20	68	6.3 x 11	E11	ULG686M1DE11	55	1500	12	280
20	100	8 x 11.5	F1A	ULG107M1DF1A	35	2670	12	400
20	150	10 x 12.5	G1B	ULG157M1DG1B	35	2672	12	600
20	390	8 x 11.5	F1A	ULG397M1DF1A	35	2670	12	1560
20	680	8 x 16	F16	ULG687M1DF16	16	4650	12	2720
20	680	10 x 11.5	G1A	ULG687M1DG1A	30	2800	12	2720
25	22	5 x 8	D08	ULG226M1ED08	80	900	12	280
25	22	6.3 x 8	E08	ULG226M1EE08	55	1700	12	280
25	33	6.3 x 8	E08	ULG336M1EE08	80	1200	12	280
25	33	8 x 8	F08	ULG336M1EF08	50	1870	12	280
25	47	5 x 8	D08	ULG476M1ED08	60	1100	12	280
25	47	6.3 x 6	E06	ULG476M1EE06	50	1600	12	280
25	47	8 x 8	F08	ULG476M1EF08	45	1940	12	280
25	56	8 x 8	F08	ULG566M1EF08	40	2500	12	280
25	100	6.3 x 8	E08	ULG107M1EE08	50	1200	12	500
25	100	8 x 11.5	F1A	ULG107M1EF1A	40	2500	12	500
25	100	10 x 12.5	G1B	ULG107M1EG1B	40	4320	12	500
25	150	6.3 x 11	E11	ULG157M1EE11	40	2500	12	750
25	150	8 x 11.5	F1A	ULG157M1EF1A	40	2550	12	750
25	180	8 x 11.5	F1A	ULG187M1EF1A	40	2550	12	900
25	220	8 x 11.5	F1A	ULG227M1EF1A	35	2900	12	1100
25	220	10 x 12.5	G1B	ULG227M1EG1B	35	3100	12	1100
25	330	10 x 12.5	G1B	ULG337M1EG1B	45	3100	12	1650
25	390	10 x 12.5	G1B	ULG397M1EG1B	35	3100	12	1950
25	470	8 x 11.5	F1A	ULG477M1EF1A	35	2900	12	2350
25	470	10 x 12.5	G1B	ULG477M1EG1B	35	3100	12	2350
25	680	8 x 16	F16	ULG687M1EF16	16	4650	12	3400
35	10	6.3 x 8	E08	ULG106M1VE08	90	1500	12	280
35	22	8 x 8	F08	ULG226M1VF08	100	1600	12	280
35	33	6.3 x 8	E08	ULG336M1VE08	100	1300	12	280
35	33	8 x 8	F08	ULG336M1VF08	90	1700	12	280
35	47	6.3 x 6	E06	ULG476M1VE06	90	1250	12	329
35	47	8 x 8	F08	ULG476M1VF08	90	1500	12	329
35	47	8 x 11.5	F1A	ULG476M1VF1A	90	1500	12	329
35	100	6.3 x 11	E11	ULG107M1VE11	75	1800	12	700
35	100	8 x 8	F08	ULG107M1VF08	80	1900	12	700
35	100	8 x 11.5	F1A	ULG107M1VF1A	55	2000	12	700
35	100	10 x 12.5	G1B	ULG107M1VG1B	65	1870	12	700
35	220	8 x 11.5	F1A	ULG227M1VF1A	55	2000	12	1540
35	220	10 x 12.5	G1B	ULG227M1VG1B	55	2450	12	1540
35	330	10 x 12.5	G1B	ULG337M1VG1B	45	2700	12	2310