

ULR Series

+105°C, Higher Ripple Current, Lower ESR Than ULG

Features

- Higher Ripple Current, Lower ESR Than ULG
- Wide Temperature Range
- RoHS Compliant



Applications

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

SPECIFICATIONS

Items	Performance Characteristics				
Operating Temperature Range	-55 to +105°C				
Rated Working Voltage Range	2.5VDC to 16VDC				
Surge Voltage, SV	SV=WVx1.15 VDC(Normal temperature)				
Nominal Capacitance Range	100 to 2700μF(120Hz, +20°C)				
Capacitance Tolerance	±20%(120Hz, +20°C)				
tanδ	0.10 (120Hz, +20°C)				
Leakage Current, Lc	I≤0.2CV or 280(μA) whichever is greater measured, after 2 minutes application of rated working voltage at +20°C				
Temperature Characteristics, Impedance Ratio	At -55°C 100kHz(Low temperature)			Z/Z _{20°C} ≤1.25	
	At +105°C 100kHz(High temperature)			Z/Z _{20°C} ≤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°C, 2000 hours Rated voltage applied	ΔC/C	Within ±20% of initial measured value		
		tanδ	≤150% of initial specified value		
		ESR	≤150% of initial specified value		
		Lc	≤Initial specified value		
Damp Heat Test(Steady State)	Test conditions +60°C, 90% to 95% RH 1000 hours No applied voltage	ΔC/C	Within ±20% of initial measured value		
		tanδ	≤150% of initial specified value		
		ESR	≤150% of initial specified value		
		Lc	≤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 1000 cycles.	ΔC/C	Within ±20% of initial measured value		
		tanδ	≤150% of initial specified value		
		ESR	≤150% of initial specified value		
		Lc	≤Initial specified value		
Others	JIS-C-5101-4				

DIMENSIONS



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Size List

μF \ RV	Code	2.5(0E)	4(0G)	6.3(0J)	10(1A)	16(1C)
100	107					E11
180	187					F1A
220	227					E11, F08, F1A
270	277		E08		F1A	F08, F1A
330	337			E08, F08		F08, G1B
390	397			F08	F1A	
470	477	D09		F08, F1A	G1B	F1A, G1B
560	567	D09, E08, F08	E08, F09, F1A	F08	F08	
680	687		F08, F1A	G1B	G1B	G1B
820	827	E08, F08, F1A	F1A	F08, F1A, G1B	F1A	G1B
1000	108	F1A	F08, G1B			G1B
1200	128		F08	F1A	G1B	
1500	158	F1A		G1B		
2700	278	G1B	G1B			

RV: Rate voltage

Size Code	D09	E08	E11	F08	F1A	G1B
$\phi\text{D}\times\text{L}$	5x9	6.3x8	6.3x11	8x8	8x11.5	10x12.5
$F\pm 0.5$	2.0	2.5	2.5	3.5	3.5	5.0
ϕd	0.6	0.6	0.6	0.6	0.6	0.6
α	L<11: $\alpha=1.0$;		L \geq 11: $\alpha=1.5$			

(unit: mm)

Characteristics List

Side Code	Part Number	Rate voltage (V)	Rate capacitance (μF)	ESR (m Ω) (max) 100kHz to 300kHz/20°C	Rated ripple current 100kHz(mArms) at 105°C	Tangent of loss angle (%max)	Leakage current (μA) (max) After 2 minutes
D09	ULR477M0ED09	2.5	470	7	4180	10	235
	ULR567M0ED09	2.5	560	7	4180	10	280
E08	ULR277M0GE08	4	270	12	3200	10	216
	ULR337M0JE08	6.3	330	10	3500	10	416
	ULR567M0GE08	4	560	7	3500	10	448
	ULR827M0EE08	2.5	820	7	5600	10	410
E11	ULR107M1CE11	16	100	24	2820	10	320
	ULR227M1CE11	16	220	20	3100	10	704
F08	ULR227M1CF08	16	220	13	4300	10	704
	ULR277M1CF08	16	270	13	4300	10	864
	ULR337M0JF08	6.3	330	8	5700	10	416
	ULR337M1CF08	16	330	13	4700	10	1056
	ULR397M0JF08	6.3	390	8	5700	10	491
	ULR477M0JF08	6.3	470	8	5700	10	592
	ULR567M0EF08	2.5	560	7	6100	10	280
ULR567M0GF08	4	560	7	6100	10	448	

Rated Ripple Current(mA)at 105°C 100kHz
ESR(m Ω)at 20°C 100kHz to 300kHz

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Characteristics List

Side Code	Part Number	Rate voltage (V)	Rate capacitance (μF)	ESR (mΩ) (max) 100kHz to 300kHz/20°C	Rated ripple current 100kHz(mArms) at 105°C	Tangent of loss angle (%max)	Leakage current (μA) (max) After 2 minutes
F08	ULR567M0JF08	6.3	560	8	5700	10	706
	ULR567M1AF08	10	560	9	5100	10	1120
	ULR687M0GF08	4	680	7	6100	10	544
	ULR827M0EF08	2.5	820	7	6100	10	410
	ULR827M0GF08	4	820	7	6100	10	656
	ULR827M0JF08	6.3	820	8	5700	10	1033
	ULR108M0GF08	4	1000	7	6100	10	800
	ULR128M0GF08	4	1200	9	5900	10	960
F1A	ULR187M1CF1A	16	180	16	4500	10	576
	ULR227M1CF1A	16	220	13	5000	10	704
	ULR277M1AF1A	10	270	9	5650	10	540
	ULR277M1CF1A	16	270	13	5000	10	864
	ULR397M1AF1A	10	390	9	5650	10	780
	ULR477M0JF1A	6.3	470	7	6100	10	592
	ULR477M1CF1A	16	470	11	5100	10	1504
	ULR567M0GF1A	4	560	7	6100	10	448
	ULR687M0GF1A	4	680	7	6100	10	544
	ULR827M0EF1A	2.5	820	7	6100	10	410
	ULR827M0GF1A	4	820	7	6100	10	656
	ULR827M0JF1A	6.3	820	7	6100	10	1033
	ULR827M1AF1A	10	820	9	5800	10	1640
	ULR108M0EF1A	2.5	1000	7	6100	10	500
	ULR128M0JF1A	6.3	1200	9	6100	10	1512
	ULR158M0EF1A	2.5	1500	7	6100	10	750
G1B	ULR377M1CG1B	16	330	10	6100	10	1056
	ULR477M1AG1B	10	470	8	6100	10	940
	ULR477M1CG1B	16	470	10	6100	10	1504
	ULR687M0JG1B	6.3	680	7	6640	10	857
	ULR687M1AG1B	10	680	8	6100	10	1360
	ULR687M1CG1B	16	680	10	6100	10	2176
	ULR827M0JG1B	6.3	820	7	6640	10	1033
	ULR827M1CG1B	16	820	11	5600	10	2624
	ULR108M0GG1B	4	1000	7	6640	10	800
	ULR108M1CG1B	16	1000	11	5600	10	3200
	ULR128M1AG1B	10	1200	8	6200	10	2400
	ULR158M0JG1B	6.3	1500	10	5560	10	1890
	ULR278M0EG1B	2.5	2700	8	5560	10	1350
	ULR278M0GG1B	4	2700	8	6900	10	2160

Rated Ripple Current(mA)at 105°C 100kHz
ESR(mΩ)at 20°C 100kHz to 300kHz

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.