

UVG Series

+105° C, Surface Mount Type, Low ESR

Features

- Standard SMD Type Product
- Support Lead Free Reflow
- RoHS Compliant



Applications

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

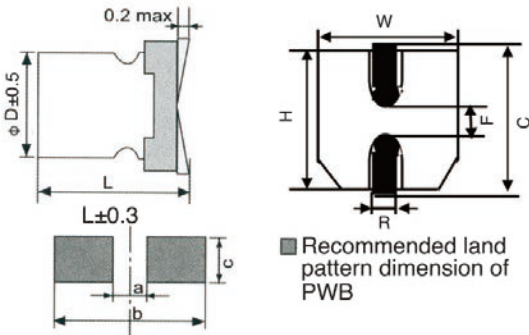
Specifications

Item	Performance Characteristics				
Operating Temperature Range	-55 to +105°C				
Rated Working Voltage Range	2.5VDC to 35VDC				
Surge Voltage, SV	SV=WV x 1.15VDC (Normal temperature)				
Nominal Capacitance Range	10 to 820μF (120Hz, +20°C)				
Capacitance Tolerance	±20% (120Hz, +20°C)				
tan δ	0.15 (120Hz, +20°C)				
Leakage Current, Lc	After 2 minutes of rated voltage applied at +20°C, please see the characteristics list				
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, 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°C, 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		
Resistance to Soldering Heat	+230°C, 75 sec.	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-5101-18				

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Case Size Table



(Unit: mm)

Size Code	D06	E06	F08	FT2	F12	G1B
$\Phi D \times L$	5 x 6	6.3 x 6	8 x 8	8 x 10.2	8 x 12	10 x 12.5
$W \pm 0.2$	5.3	6.6	8.3	8.3	8.3	10.3
$H \pm 0.2$	5.3	6.6	8.3	8.3	8.3	10.3
$C \pm 0.2$	6	7.3	9.0	9.0	9.0	11
R	0.5~0.8	0.5~0.8	0.6~1.0	0.8~1.1	0.8~1.1	0.8~1.1
$F \pm 0.2$	1.7	1.9	3.2	3.2	3.2	4.6
a	2.1	2.1	2.8	2.8	2.8	4.3
b	7.7	9.1	11.1	11.1	11.1	13.1
c	1.6	1.6	1.9	1.9	1.9	1.9

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						D06	E06	
22	226						E06		
33	336								E06
47	476						F08	E06, FT2	
100	107						F12	F12	
150	157							G1B	
180	187					F12			
220	227							F12, G1B	
270	277					F12			
330	337	E06	E06		F12				
470	477			F12					
560	567	FT2	F12		F12				
680	687	F12							
820	827			F12					

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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	330	6.3 x 6	E06	UVG337M0EE06	26	2247	15	500
2.5	560	8 x 10.2	FT2	UVG567M0EFT2	15	4210	15	500
2.5	680	8 x 12	F12	UVG687M0EF12	13	4520	15	500
4	330	6.3 x 6	E06	UVG337M0GE06	21	2630	15	500
4	560	8 x 12	F12	UVG567M0GF12	15	4000	15	500
6.3	470	8 x 12	F12	UVG477M0JF12	15	4210	15	592
6.3	820	8 x 12	F12	UVG827M0JF12	15	4210	15	1033
10	330	8 x 12	F12	UVG337M1AF12	17	3950	15	660
10	560	8 x 12	F12	UVG567M1AF12	17	3950	15	1120
16	180	8 x 12	F12	UVG187M1CF12	20	3640	15	576
16	270	8 x 12	F12	UVG277M1CF12	19	4070	15	864
20	10	5 x 6	D06	UVG106M1DD06	120	1000	15	500
20	22	6.3 x 6	E06	UVG226M1DE06	60	1650	15	500
20	47	8 x 8	F08	UVG476M1DF08	45	1890	15	500
20	100	8 x 12	F12	UVG107M1DF12	30	2960	15	500
25	10	6.3 x 6	E06	UVG106M1EE06	70	1600	15	500
25	47	6.3 x 6	E06	UVG476M1EE06	70	1600	15	500
25	47	8 x 10.2	FT2	UVG476M1EFT2	45	2000	15	500
25	100	8 x 12	F12	UVG107M1EF12	40	2500	15	500
25	150	10 x 12.5	G1B	UVG157M1EG1B	35	3050	15	750
25	220	8 x 12	F12	UVG227M1EF12	40	2734	15	1100
25	220	10 x 12.5	G1B	UVG227M1EG1B	35	3050	15	1100
35	33	6.3 x 6	E06	UVG336M1VE06	200	798	15	280

UVR Series

+105° C, Surface Mount Type, Lower ESR than UVG

• Features

- Surface Mount Type Product with Large Capacitance and Low ESR
- Support Lead Free Reflow
- RoHS Compliant



• Applications

- Suitable for DC-DC Converters, Voltage Regulators, Decoupling Applications for Computer Motherboards and High End Graphic Card, etc..

• Specifications

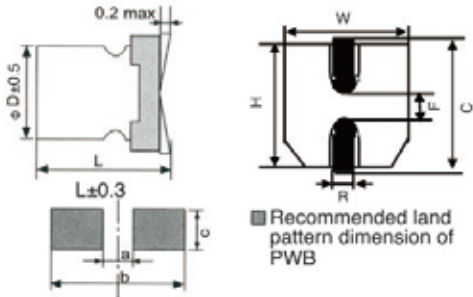
Item	Performance Characteristics				
Operating Temperature Range	-55 to +105°C				
Rated Working Voltage Range	2.5VDC to 35VDC				
Surge Voltage, SV	SV=WVx1.15VDC (Normal temperature)				
Nominal Capacitance Range	10 to 2200μF (120Hz, +20°C)				
Capacitance Tolerance	±20% (120Hz, +20°C)				
tan δ	0.12 (120Hz, +20°C)				
Leakage Current, Lc	After 2 minutes of rated voltage applied at +20°C, please see the characteristics list				
Temperature Characteristics, Impedance Ratio	At -55°C 100kHz (Low temperature)			Z/Z20°C≤1.25	
	At +105°C 100kHz (High temperature)			Z/Z20°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, 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°C, 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		
Resistance to Soldering Heat	+230°C, 75 sec.	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-5101-18				

UVR Series

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Case Size Table

(Unit: mm)



Size Code	E42	E45	E59	E06	E08	E09	F08	FT2	F12	G1B
$\Phi D \times L$	6.3 x 4.2	6.3 x 4.5	6.3 x 5.9	6.3 x 6	6.3 x 8	6.3 x 9	8 x 8	8 x 10.2	8 x 12	10 x 12.5
$W \pm 0.2$	6.6	6.6	6.6	6.6	6.6	6.6	8.3	8.3	8.3	10.3
$H \pm 0.2$	6.6	6.6	6.6	6.6	6.6	6.6	8.3	8.3	8.3	10.3
$C \pm 0.2$	7.3	7.3	7.3	7.3	7.3	7.3	9.0	9.0	9.0	11
R	0.5-0.8	0.5-0.8	0.5-0.8	0.5-0.8	0.5-0.8	0.5-0.8	0.6-1.0	0.8-1.1	0.8-1.1	0.8-1.1
$F \pm 0.2$	1.9	1.9	1.9	1.9	1.9	1.9	3.2	3.2	3.2	4.6
a	2.1	2.1	2.1	2.1	2.1	2.1	2.8	2.8	2.8	4.3
b	9.1	9.1	9.1	9.1	9.1	9.1	11.1	11.1	11.1	13.1
c	1.6	1.6	1.6	1.6	1.6	1.6	1.9	1.9	1.9	1.9

Size List

New Item | RV: Rated Voltage

RV μF	Code	2.5 (0E)	4 (0G)	6.3 (0J)	10 (1A)	16 (1C)	25 (1E)	35 (1V)
10	106						E06	
22	226					E06		E06
39	396					E06		
47	476			E06	E06			
50	506							
68	686					E06		
100	107			E06		E06	F12	G1B
120	127				E06			
150	157			E45, E06	E06	F08		
180	187					E59, F12		
220	227			E42, E45, E59, E06		F08, FT2, F12		
270	277					FT2, F12		
330	337	E42, E45, E06	E06	E59, E06, E08	F12	F12, G1B		
390	397	E06						
470	477			E09, F12	F12	F12, G1B		
560	567	E06, FT2	FT2, F12	F08, F12				
680	687	F12	F08	G1B		G1B		
820	827	FT2		F12, G1B				
1000	108	F08	G1B	F12		G1B		
1500	158			G1B				
2200	228			G1B				

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.

UVR Series

+ 105° C, Surface Mount Type, Lower ESR than UVG

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	330	6.3 x 4.2	E42	UVR337M0EE42	17	2300	12	700
2.5	330	6.3 x 4.5	E45	UVR337M0EE45	17	2300	12	700
2.5	330	6.3 x 6	E06	UVR337M0EE06	17	2900	12	500
2.5	390	6.3 x 6	E06	UVR397M0EE06	17	3390	12	500
2.5	560	6.3 x 6	E06	UVR567M0EE06	16	3500	12	500
2.5	560	8 x 10.2	FT2	UVR567M0EFT2	12	4210	12	500
2.5	680	8 x 12	F12	UVR687M0EF12	10	5020	12	500
2.5	820	8 x 10.2	FT2	UVR827M0EFT2	12	4210	12	500
2.5	1000	8 x 8	F08	UVR108M0EF08	12	4260	12	500
4	330	6.3 x 6	E06	UVR337M0GE06	17	2900	12	500
4	560	8 x 10.2	FT2	UVR567M0GFT2	14	3950	12	544
4	560	8 x 12	F12	UVR567M0GF12	13	4520	12	500
4	680	8 x 8	F08	UVR687M0GF08	13	3950	12	544
4	1000	10 x 12.5	G1B	UVR108M0GG1B	10	4850	12	800
6.3	47	6.3 x 6	E06	UVR476M0JE06	70	1600	12	500
6.3	100	6.3 x 6	E06	UVR107M0JE06	50	1620	12	500
6.3	150	6.3 x 4.5	E45	UVR157M0JE45	19	2319	12	280
6.3	150	6.3 x 6	E06	UVR157M0JE06	50	1620	12	500
6.3	220	6.3 x 4.2	E42	UVR227M0JE42	24	2100	12	700
6.3	220	6.3 x 4.5	E45	UVR227M0JE45	24	2100	12	700
6.3	220	6.3 x 5.9	E59	UVR227M0JE59	26	2450	12	500
6.3	220	6.3 x 6	E06	UVR227M0JE60	26	2213	12	280
6.3	330	6.3 x 5.9	E59	UVR337M0JE59	25	2200	12	500
6.3	330	6.3 x 6	E06	UVR337M0JE60	25	2257	12	416
6.3	330	6.3 x 8	E08	UVR337M0JE08	15	2700	12	500
6.3	470	6.3 x 9	E09	UVR477M0JE09	15	2700	12	592
6.3	470	8 x 12	F12	UVR477M0JF12	12	4780	12	592
6.3	560	8 x 8	F08	UVR567M0JF08	20	2500	12	706
6.3	560	8 x 12	F12	UVR567M0JF12	12	4780	12	706
6.3	680	10 x 12.5	G1B	UVR687M0JG1B	15	3500	12	857
6.3	820	8 x 12	F12	UVR827M0JF12	12	4260	12	1033

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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)
6.3	820	10 x 12.5	G1B	UVR827M0JG1B	12	4500	12	1033
6.3	1000	8 x 12	F12	UVR108M0JF12	15	3500	12	1260
6.3	1500	10 x 12.5	G1B	UVR158M0JG1B	10	4850	12	1890
6.3	2200	10 x 12.5	G1B	UVR228M0JG1B	12	5250	12	2772
10	47	6.3 x 6	E06	UVR476M1AE06	50	1620	12	500
10	120	6.3 x 6	E06	UVR127M1AE06	25	2320	12	500
10	150	6.3 x 6	E06	UVR157M1AE06	27	2320	12	500
10	330	8 x 12	F12	UVR337M1AF12	14	4390	12	660
10	470	8 x 12	F12	UVR477M1AF12	25	3500	12	940
16	22	6.3 x 6	E06	UVR226M1CE06	55	1522	12	280
16	39	6.3 x 6	E06	UVR396M1CE06	50	1620	12	500
16	68	6.3 x 6	E06	UVR686M1CE06	30	2200	12	500
16	100	6.3 x 6	E06	UVR107M1CE06	25	2700	12	500
16	150	8 x 8	F08	UVR157M1CF08	22	3150	12	500
16	180	6.3 x 5.9	E59	UVR187M1CE59	22	2390	12	576
16	180	8 x 12	F12	UVR187M1CF12	16	4040	12	576
16	220	8 x 8	F08	UVR227M1CF08	22	3150	12	704
16	220	8 x 10.2	FT2	UVR227M1CFT2	22	3450	12	704
16	220	8 x 12	F12	UVR227M1CF12	22	3450	12	704
16	270	8 x 10.2	FT2	UVR277M1CFT2	20	3600	12	864
16	270	8 x 12	F12	UVR277M1CF12	13	5200	12	864
16	330	8 x 12	F12	UVR337M1CF12	16	4720	12	1056
16	330	10 x 12.5	G1B	UVR337M1CG1B	13	5200	12	1056
16	470	8 x 12	F12	UVR477M1CF12	14	4700	12	1504
16	470	10 x 12.5	G1B	UVR477M1CG1B	13	5200	12	1504
16	680	10 x 12.5	G1B	UVR687M1CG1B	18	4750	12	2176
16	1000	10 x 12.5	G1B	UVR108M1CG1B	20	4474	12	3200
25	10	6.3 x 6	E06	UVR106M1EE06	70	1349	12	280
25	100	8 x 12	F12	UVR107M1EF12	40	2734	12	500
35	22	6.3 x 6	E06	UVR226M1VE06	60	1457	12	280
35	100	10 x 12.5	G1B	UVR107M1VG1B	65	2482	12	700