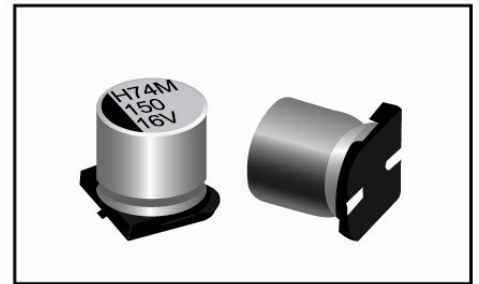
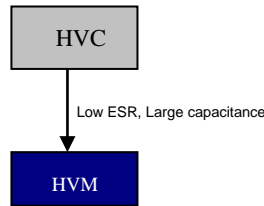


- Chip Type , Low ESR, Large Capacitance 105°C, 2000 hours.
- Ultra Low ESR, high ripple current capability
- Applications: DC/DC Converter, Switching Power Supply, Back up Power Supplies for CPU etc.
- RoHS Compliant

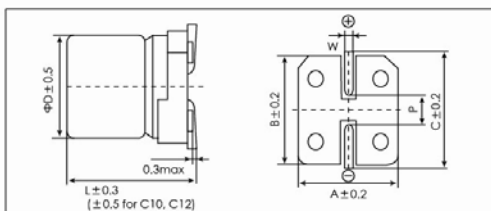


Items	Characteristics
Operating Temperature Range(°C)	-55~+105
Voltage Range (V)	2.5~16
Capacitance Range(μF)(20°C,120Hz)	56~2700
Capacitance Tolerance (20°C,120Hz)	±20%
Surge Voltage	$U_R \times 1.15$
Leakage Current (μA)※1	Please see attached ratings list (20°C,2min)
Dissipation Factor (20°C,120Hz)	Please see attached ratings list
Equivalent Series Resistance(20°C,100kHz)	Please see attached ratings list
Temperature Characteristics(Max Impedance Ratio at 100kHz)	$Z(+105^\circ\text{C})/Z(+20^\circ\text{C}): \leq 1.25$ $Z(-55^\circ\text{C})/Z(+20^\circ\text{C}): \leq 1.25$
Endurance	<b>2000h, Rated voltage applied at 105°C</b> Capacitance change: within ±20% of the initial Measured value Dissipation Factor (Tan δ): ≤150% of initial specified value ESR: ≤150% of initial specified value DC Leakage Current: ≤the initial specified value
Temp heat(Steady state)	<b>1000h, No-applied voltage 60°C, 90~95% RH</b> Capacitance change: within ±20% of the initial Measured value Dissipation Factor (Tan δ): ≤150% of initial specified value ESR: ≤150% of initial specified value DC Leakage Current: ≤the initial specified value(after voltage processing)
Resistance to soldering heat	<b>Reflow Method (260°C × 5s)</b> Capacitance change: within ±10% of the initial Measured value Dissipation Factor (Tan δ): ≤130% of initial specified value ESR: ≤130% of initial specified value DC Leakage Current: ≤the initial specified value(after voltage processing)

※ 1 In case of some problems for Measured values, Measure after applying rated voltage for 120 Minutes at 105°C.

(unit:Mm)

## Dimensions mm



Size Code	φD±0.5	L	A±0.2	B±0.2	C±0.2	W	P±0.2
F60	6.3	5.7	6.6	6.6	7.3	0.5 ~ 0.8	2.0
F80	6.3	7.7	6.6	6.6	7.3	0.5 ~ 0.8	2.0
F10	6.3	9.7	6.6	6.6	7.3	0.7 ~ 1.1	2.0
B70	8	6.7	8.3	8.3	9.0	0.5 ~ 0.8	3.1
B80	8	7.7	8.3	8.3	9.0	0.7 ~ 1.1	3.1
B10	8	9.7	8.3	8.3	9.0	0.7 ~ 1.1	3.1
B12	8	12.2	8.3	8.3	9.0	0.7 ~ 1.1	3.1
C80	10	7.7	10.3	10.3	11.0	0.7 ~ 1.1	4.6
C10	10	9.7	10.3	10.3	11.0	0.7 ~ 1.1	4.6
C12	10	12.2	10.3	10.3	11.0	0.7 ~ 1.1	4.6

## Size List

UR[S.V](V) Cap.(μF)	2.5[2.9]	4 [4.6 ]	6.3[7.2 ]	10 [12 ]	16 [18 ]
56					F60
68					F60
82					F60
100					F80
120				F60	F60,F80,B70
150				F60,F80	B70
180				F60	B70,B80
220			F60	B70	B10
270		F60	F60,F80	B70	B10,C80
330	F60	F60	F60,F80,F10,B70	B70,B80	B12
390	F60	F60,F80	B70	B10	B12,C10
470	F60,F80	B70	B70,B80	C80	
560	F60,F80,B70	B70,B12	B70		C12
680	B70	B80	B10	C10	
820	B80,B12		B10,B12,C80		
1,000	B80	B10,C80	B12		
1,200	C80	B12,C10	C10		
1,500	B10,B12	B12,C10	C10,C12		
1,800		C10,C12			
2,200	C10				
2,700	C12				

## Ratings for HVS Series

UR Code	Rated Capacitance 20°C,120Hz	Max ESR 20°C,100kHz	Rated Ripple Current 105°C, 100kHz	Dissipation Factor 20°C,120Hz	Leakage Current 20°C,2min	Size φ D×L	P/N
(v)	(μF)	(m Ω)	(mArms)	(%)	(μA)	(mm)	-
2.5 OE	330	14	3,160	12	165.0	6.3x5.7	PCVOEVM331MF60□□
	390	14	3,160	12	195.0	6.3x5.7	PCVOEVM391MF60□□
	470	13	3,600	12	235.0	6.3x5.7	PCVOEVM471MF60□□
	560	13	3,600	12	280.0	6.3x5.7	PCVOEVM561MF60□□
	470	13	3,600	12	235.0	6.3x7.7	PCVOEVM471MF80□□
	560	13	3,600	12	280.0	6.3x7.7	PCVOEVM561MF80□□
	560	13	4,100	12	280.0	8x6.7	PCVOEVM561MB70□□
	680	13	4,100	12	340.0	8x6.7	PCVOEVM681MB70□□
	820	12	4,260	12	410.0	8x7.7	PCVOEVM821MB80□□
	1,000	12	4,260	12	500.0	8x7.7	PCVOEVM102MB80□□
	1,500	10	5,220	12	750.0	8x9.7	PCVOEVM152MB10□□
	820	9	5,400	12	410.0	8x12.2	PCVOEVM821MB12□□
	1,500	9	5,400	12	750.0	8x12.2	PCVOEVM152MB12□□
	1,200	13	4,450	12	600.0	10x7.7	PCVOEVM122MC80□□
	2,200	10	5,500	12	1,100.0	10x9.7	PCVOEVM222MC10□□
2,700	9	5,600	12	1,350.0	10x12.2	PCVOEVM272MC12□□	
4 OG	270	15	3,160	12	216.0	6.3x5.7	PCVOGVM271MF60□□
	330	14	3,160	12	264.0	6.3x5.7	PCVOGVM331MF60□□
	390	14	3,160	12	312.0	6.3x5.7	PCVOGVM391MF60□□
	390	14	3,470	12	312.0	6.3x7.7	PCVOGVM391MF80□□
	470	14	3,950	12	376.0	8x6.7	PCVOGVM471MB70□□
	560	14	3,950	12	448.0	8x6.7	PCVOGVM561MB70□□
	680	13	3,950	12	544.0	8x7.7	PCVOGVM681MB80□□
	1,000	10	5,220	12	800.0	8x9.7	PCVOGVM102MB10□□
	560	9	5,400	12	448.0	8x12.2	PCVOGVM561MB12□□
	1,200	9	5,400	12	960.0	8x12.2	PCVOGVM122MB12□□
	1,500	9	5,400	12	1,200.0	8x12.2	PCVOGVM152MB12□□
	1,000	14	4,300	12	800.0	10x7.7	PCVOGVM102MC80□□
	1,200	10	5,500	12	960.0	10x9.7	PCVOGVM122MC10□□
	1,500	10	5,500	12	1,200.0	10x9.7	PCVOGVM152MC10□□
	1,800	10	5,500	12	1,440.0	10x9.7	PCVOGVM182MC10□□
1,800	9	5,600	12	1,440.0	10x12.2	PCVOGVM182MC12□□	
6.3 OJ	220	15	3,160	12	277.2	6.3x5.7	PCVOJVM221MF60□□
	270	14	3,160	12	340.2	6.3x5.7	PCVOJVM271MF60□□

# HVM SERIES



	330	14	3,390	12	415.8	6.3x5.7	PCV0JVM331MF60□□
	270	14	3,470	12	340.2	6.3x7.7	PCV0JVM271MF80□□
	330	14	3,470	12	415.8	6.3x7.7	PCV0JVM331MF80□□
	330	14	3,950	12	415.8	6.3x9.7	PCV0JVM331MF10□□
	330	14	3,950	12	415.8	8x6.7	PCV0JVM331MB70□□
	390	14	3,950	12	491.4	8x6.7	PCV0JVM391MB70□□
	470	14	3,950	12	592.2	8x6.7	PCV0JVM471MB70□□
	560	14	3,950	12	705.6	8x6.7	PCV0JVM561MB70□□
	470	13	3,950	12	592.2	8x7.7	PCV0JVM471MB80□□
	680	12	4,770	12	856.8	8x9.7	PCV0JVM681MB10□□
	820	12	4,770	12	1,033.2	8x9.7	PCV0JVM821MB10□□
	820	10	5,150	12	1,033.2	8x12.2	PCV0JVM821MB12□□
	1,000	10	5,150	12	1,260.0	8x12.2	PCV0JVM102MB12□□
	820	14	4,300	12	1,033.2	10x7.7	PCV0JVM821MC80□□
	1,200	12	5,025	12	1,512.0	10x9.7	PCV0JVM122MC10□□
	1,500	12	5,025	12	1,890.0	10x9.7	PCV0JVM152MC10□□
	1,500	10	5,500	12	1,890.0	10x12.2	PCV0JVM152MC12□□
	10 1A	120	18	2,900	12	240.0	6.3x5.7
150		18	2,900	12	300.0	6.3x5.7	PCV1AVM151MF60□□
180		18	2,900	12	360.0	6.3x5.7	PCV1AVM181MF60□□
150		21	2,880	12	300.0	6.3x7.7	PCV1AVM151MF80□□
220		21	3,220	12	440.0	8x6.7	PCV1AVM221MB70□□
270		21	3,220	12	540.0	8x6.7	PCV1AVM271MB70□□
330		21	3,220	12	660.0	8x6.7	PCV1AVM331MB70□□
330		19	3,390	12	660.0	8x7.7	PCV1AVM331MB80□□
390		17	4,000	12	780.0	8x9.7	PCV1AVM391MB10□□
470		19	3,800	12	940.0	10x7.7	PCV1AVM471MC80□□
680		13	4,820	12	1,360.0	10x9.7	PCV1AVM681MC10□□
16 1C	56	25	2,440	12	179.2	6.3x5.7	PCV1CVM560MF60□□
	68	25	2,440	12	217.6	6.3x5.7	PCV1CVM680MF60□□
	100	24	2,490	12	320.0	6.3x5.7	PCV1CVM101MF60□□
	82	24	2,700	12	262.4	6.3x7.7	PCV1CVM820MF80□□
	100	24	2,700	12	320.0	6.3x7.7	PCV1CVM101MF80□□
	100	24	3,010	12	320.0	8x6.7	PCV1CVM101MB70□□
	120	24	3,010	12	384.0	8x6.7	PCV1CVM121MB70□□
	150	22	3,220	12	480.0	8x6.7	PCV1CVM151MB70□□
	180	22	3,220	12	576.9	8x6.7	PCV1CVM151MB70□□
	220	22	3,220	12	704.0	8x6.7	PCV1CVM151MB70□□
	150	22	3,150	12	480.0	8x7.7	PCV1CVM151MB80□□
	180	18	3,890	12	576.0	8x9.7	PCV1CVM181MB10□□
	220	18	3,890	12	704.0	8x9.7	PCV1CVM221MB10□□
	270	16	4,070	12	864.0	8x12.2	PCV1CVM271MB12□□
	330	16	4,070	12	1,056.0	8x12.2	PCV1CVM331MB12□□
	220	22	3,450	12	704.0	10x7.7	PCV1CVM221MC80□□
	330	16	4,350	12	1,056.0	10x9.7	PCV1CVM331MC10□□
	470	14	5,050	12	1,504.0	10x12.2	PCV1CVM471MC12□□

Customer products are available on request.

## Frequency coefficient for ripple current

Frequency	$120\text{Hz} \leq f < 1\text{kHz}$	$1\text{kHz} \leq f < 10\text{kHz}$	$10\text{kHz} \leq f < 100\text{kHz}$	$100\text{kHz} \leq f < 500\text{kHz}$
Coefficient	0.05	0.3	0.7	1