

## HV Series

### Features

- ◆ Long life of 2000 hrs at 105°C
- ◆ Reflow soldering is available
- ◆ Available for high density mounting
- ◆ RoHS Compliant



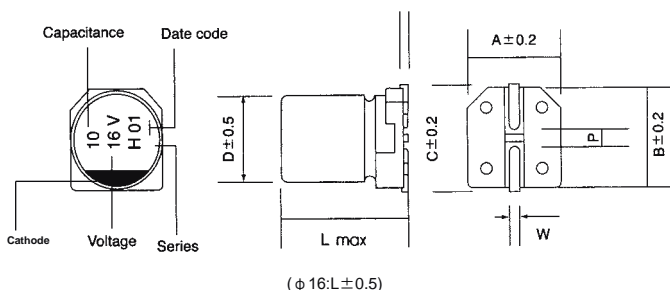
### Specifications

Item	Performance Characteristics								
Operating Temperature Range	-55 +105°C								
Rated Voltage Range	6.3~63 VDC								
Capacitance Range	0.1 to 6800 μF								
Capacitance Tolerance	±20%(120Hz,+20°C)								
Leakage Current (+20°C,max.)	I ≤ 0.01 CV or 3 (μA) After 2 minutes, whichever is greater measured with rated working voltage applied								
Dissipation Factor (tan δ , at 20°C , 120Hz)	Working voltage(VDC)	6.3	10	16	25	35	50	63	
	D.F.(%)max	φ 4~6.3	30	24	20	16	14	14	12
		φ 8~10	35	26	24	18	14	14	12
Low Temperature Characteristics (at 120Hz)	Impedance ratio max								
	Rated voltage(VDC)	6.3	10	16	25	35	50	63	
	Z-25°C/Z+20°C	6	4	4	3	2	2	2	
Endurance	Z-40°C/Z+20°C	12	10	8	6	4	4	4	
	Test conditions	Duration time :2000 Hrs Ambient temperature :+105°C Applied voltage :Rated DC working voltage After test requirement at +20°C: Capacitance change :Within ±30% of the initial value Dissipation factor :Not more than 300% of specified value Leakage current :Not more than the specified value							
Shelf Life	Test conditions	Duration time :1000 Hrs Ambient temperature :+105°C Applied voltage :None After test requirement at +20°C : Same limits as Endurance. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.							
	Resistance to soldering heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed under.							
	Leakage current	Less than specified value							
	Capacitance change	Within ±10% of initial value							
	tan δ	Less than specified value							

### Multiplier for Ripple Current vs. Frequency

CAP(μF)\Frequency(Hz)	60(50)	120	500	1K	≥10K
0.1 ≤ CAP ≤ 100 μF	0.8	1.0	1.20	1.30	1.50
100 < CAP	0.8	1.0	1.10	1.15	1.20

### Diagram of Dimensions:(unit:mm)



φD	L	A	B	C	W	P
4	5.5	4.3	4.3	4.9	0.5~0.8	1.0
5	5.5	5.3	5.3	5.9	0.5~0.8	1.4
6.3	5.5	6.6	6.6	7.2	0.5~0.8	2.2
6.3	7.7	6.6	6.6	7.2	0.5~0.8	2.2
8	6.5	8.3	8.3	9.0	0.5~0.8	2.3
8	10.5	8.3	8.3	9.0	0.7~1.1	3.1
10	10.5	10.3	10.3	11.0	0.7~1.1	4.5
12.5	14	13.5	13.5	15.0	1.0~1.4	5.5
16	17	17.1	17.1	18.0	1.0~1.4	6.3

## Case Size

φ DxL(mm)

WV(V) Cap(μF)	6.3		10		16		25		35		50		63	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1											4x5.5	1.0	4x5.5	0.7
0.22											4x5.5	2.0	4x5.5	1.6
0.33											4x5.5	3.0	4x5.5	2.5
0.47											4x5.5	4.0	4x5.5	3.5
1											4x5.5	8.4	4x5.5	7
2.2											4x5.5	11	4x5.5	11
3.3											4x5.5	13	5x5.5	14
4.7							4x5.5	12	4x5.5	14	4x5.5	18	5x5.5	22
10					4x5.5	20	4x5.5	22	4x5.5	24	6.3x5.5	28	6.3x5.5	40
22	4x5.5	23	4x5.5	25	4x5.5 5x5.5	31 35	5x5.5	38	5x5.5 6.3x5.5	40 46	6.3x7.7 8x6.5	50 55	6.3x7.7	58
33	4x5.5	28	4x5.5	34	5x5.5 6.3x5.5	36 40	6.3x5.5	48	6.3x7.7 8x6.5	47 50	6.3x7.7 8x10.5	95 135	8x10.5	112
47	4x5.5 5x5.5	37 40	5x5.5	42	5x5.5 6.3x5.5	45 56	6.3x7.7 8x6.5	56 60	6.3x7.7 8x6.5	60 65	6.3x7.7 8x10.5	115 155	8x10.5	119
100	5x5.5 6.3x5.5	46 57	6.3x5.5 8x6.5	55 60	6.3x7.7 8x6.5	58 62	6.3x7.7 8x10.5	110 160	6.3x7.7 8x10.5	130 180	10x10.5	315	10x10.5	280
150	6.3x5.5 8x6.5	70 90	6.3x5.5 8x6.5	90 110	6.3x7.7 8x6.5	125 140	8x10.5	175	8x10.5	190	10x10.5	330		
220	6.3x7.7 8x6.5	90 130	6.3x7.7 8x6.5	140 160	6.3x7.7 8x10.5	170 185	8x10.5 10x10.5	180 190	8x10.5 10x10.5	250 280	10x10.5	350	12.5x14	300
330	6.3x7.7 8x10.5	140 170	8x10.5	195	8x10.5	250	8x10.5	290	10x10.5	360	12.5x14	400		
470	8x10.5	210	8x10.5 10x10.5	350 420	8x10.5 10x10.5	370 420	10x10.5	440	12.5x14	460	16x17	570	16x17	630
560	8x10.5	310	10x10.5	450	10x10.5	480	12.5x14	490	12.5x14	500				
680	10x10.5	370	10x10.5	480	10x10.5	540	12.5x14	510						
1000	10x10.5	480	10x10.5	530	12.5x14	580	12.5x14	600			16x17	655		
1200	10x10.5	500	12.5x14	570	12.5x14	590								
1500	10x10.5	520	12.5x14	750	12.5x14	620			16x17	740				
1800	12.5x14	600												
2200	12.5x14	650					16x17	805						
3300	12.5x14	700			16x17	850								
4700			16x17	880										
6800	16x17	930												

Ripple Current ( mA, rms ) at 105°C

SMD