



Specifications

Items	Characteristics																
Category temperature range	-55 to +105°C																
Rated voltage range	6.3 to 80Vdc																
Capacitance range	10 to 1000μF																
Capacitance tolerance	±20% [M] (at 20°C, 120Hz)																
Leakage current	I=0.01CV or 3μA whichever is greater (at 20°C, after 2 minutes)																
Tangent of loss angle(tanδ)	<table border="1"> <thead> <tr> <th>Rated voltage(V)</th> <th>6.3</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> </tr> </thead> <tbody> <tr> <td>Tanδ</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.08</td> </tr> </tbody> </table> <p style="text-align: right;">(at 20°C, 120Hz)</p>	Rated voltage(V)	6.3	16	25	35	50	63	80	Tanδ	0.18	0.16	0.14	0.12	0.10	0.08	0.08
Rated voltage(V)	6.3	16	25	35	50	63	80										
Tanδ	0.18	0.16	0.14	0.12	0.10	0.08	0.08										
ESR	Less than or equal to the value of Standard Ratings (at 20°C, 100kHz)																
Low temperature characteristics (Impedance ratio at 100kHz)	Z (-25 °C) / Z (+20 °C) ≤ 1.5 Z (-55 °C) / Z (+20 °C) ≤ 2.0																
Endurance	105°C, 10,000 hrs, apply the rated ripple current without exceeding the rated voltage																
	Capacitance change	Within±30% of the initial value															
	Tangent of loss angle (tanδ)	≤200% of the initial specified value															
	ESR(mΩ)	≤200% of the initial specified value															
	Leakage current	≤The initial specified value															
Shelf life	After storage for 1,000 hrs at 105°C with no voltage applied and then being stabilized at 20°C, capacitors shall meet the specified values for the endurance characteristics listed above.(with voltage treatment)																
	85°C, 85% RH, 2,000 hrs, rated voltage applied																
Damp Heat (Steady State)	Capacitance change	Within±30% of the initial value															
	Tangent of loss angle (tanδ)	≤200% of the initial specified value															
	ESR(mΩ)	≤200% of the initial specified value															
	Leakage current	≤The initial specified value															

Part numbering system

Example: HVS series, 80V / 33μF / Vibration resistant structure

80	HVS	33	M	E	10	V
Voltage	Series	Capacitance	Tolerance	Diameter	Length	Vibration resistant structure

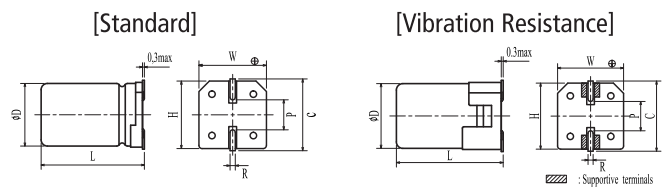
Frequency coefficient for ripple current

Frequency	120Hz	1kHz	10kHz	100kHz
Coefficient	0.15	0.40	0.75	1.00

Marking and Dimensions



Dimensions



[Standard]

(unit: mm)

Size	ØD±0.5	L	W±0.2	H±0.2	C±0.2	R	P±0.2
5.0×5.9	5.0	5.9±0.3	5.3	5.3	6.0	0.6 to 0.8	1.4
6.3×5.9	6.3	5.9±0.3	6.6	6.6	7.3	0.6 to 0.8	2.1
6.3×7.7	6.3	7.7±0.3	6.6	6.6	7.3	0.6 to 0.8	2.1
8.0×9.7	8.0	9.7±0.5	8.3	8.3	9.0	0.8 to 1.1	3.2
10.0×10.5	10.0	10.5±0.5	10.3	10.3	11.0	0.8 to 1.1	4.6
10.0×12.5	10.0	12.5±0.5	10.3	10.3	11.0	0.8 to 1.1	4.6
10.0×16.5	10.0	16.5±0.5	10.3	10.3	11.0	0.8 to 1.1	4.6

[Vibration Resistance]

(unit: mm)

Size	ØD±0.5	L	W±0.2	H±0.2	C±0.2	R	P±0.2
6.3×6.2	6.3	6.2±0.3	6.6	6.6	7.3	0.6 to 0.8	2.1
6.3×8.0	8.0	8.0±0.3	6.6	6.6	7.3	0.6 to 0.8	2.1
8.0×9.9	8.0	9.9±0.5	8.3	8.3	9.0	0.8 to 1.1	3.2
10.0×10.7	10.0	10.7±0.5	10.3	10.3	11.0	0.8 to 1.1	4.6
10.0×12.7	10.0	12.7±0.5	10.3	10.3	11.0	0.8 to 1.1	4.6
10.0×16.7	10.0	16.7±0.5	10.3	10.3	11.0	0.8 to 1.1	4.6

• Standard Ratings

Rated Voltage [Vdc]	Rated Capacitance [μF]	Size ØD x L [mm]	ESR (20°C, 100kHz) [mΩ] [max.]	Rated Ripple Current (105°C, 100kHz) [mA rms]	Part Number
6.3	560	8.0 x 9.7	16	3200	6HVS560MD10□
	1000	10.0 x 10.5	15	3900	6HVS1000ME10□
16	22	5.0 x 5.9	80	900	16HVS22MB6□
	100	6.3 x 5.9	38	2900	16HVS100MC6□
	270	10.0 x 10.5	23	2850	16HVS220ME10□
25	33	5.0 x 5.9	80	900	25HVS33MB6
	56	6.3 x 5.9	50	1300	25HVS56MC6□
	100	6.3 x 7.7	30	2000	25HVS100MC8□
	220	8.0 x 9.7	27	2300	25HVS220MD10□
	330	10.0 x 10.5	20	2500	25HVS330ME10□
	470	10.0 x 12.5	20	3200	25HVS470ME12□
	680	10.0 x 16.5	11	5700	25HVS680ME16□
35	22	5.0 x 5.9	100	900	35HVS22MB6
	27	6.3 x 5.9	60	1300	35HVS27MC6□
	47	6.3 x 5.9	60	1300	35HVS47MC6□
	68	6.3 x 7.7	35	2000	35HVS68MC8□
	100	8.0 x 9.7	28	2100	35HVS150MD10□
	150	8.0 x 9.7	27	2300	35HVS150MD10□
	220	10.0 x 12.5	22	2350	35HVS220MD12□
	270	10.0 x 10.5	20	2500	35HVS270ME10□
	470	10.0 x 12.5	18	3500	35HVS390ME12□
50	10	5.0 x 5.9	120	750	50HVS10MB6
	22	6.3 x 5.9	80	1100	50HVS22MC6□
	33	6.3 x 7.7	40	1600	50HVS33MC8□
	47	8.0 x 9.7	35	1700	35HVS47MD10□
	68	8.0 x 9.7	30	1800	50HVS68MD10□
	100	10.0 x 10.5	28	2000	50HVS100ME10□
	150	10.0 x 12.5	25	3000	50HVS150ME12□
	220	10.0 x 16.5	13	5100	50HVS220ME16□
	63	10	6.3 x 5.9	120	1000
22		6.3 x 7.7	80	1500	63HVS22MC8□
33		8.0 x 9.7	40	1600	63HVS33MD10□
56		10.0 x 10.5	30	1800	63HVS56ME10□
68		10.0 x 10.5	30	1800	63HVS68ME10□
82		10.0 x 10.5	30	2000	63HVS82ME10□
100		10.0 x 12.5	25	2500	63HVS100ME12□
120		10.0 x 12.5	30	4100	63HVS120ME12□
80	180	10.0 x 16.5	15	4900	63HVS180ME16□
	22	8.0 x 9.7	45	1600	80HVS22MD10□
	33	10.0 x 10.5	35	1700	80HVS33ME10□
	47	10.0 x 10.5	35	1700	80HVS47ME10□
	100	10.0 x 16.5	16	4400	80HVS100ME16□

*Terminal Code : V(Vibration-proof products)