HVK

Surface mount type

series

Large capacitance, High ripple current
compared with HVC series
Load life of 4,000h at 125°C
Compliance with AEC-Q200

• Specifications

Items	Characteristics	
Category temperature range	-55 to +125°C	
Rated voltage range	25 to 80Vdc	
Capacitance range	33 to 680μF	
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)	Rated voltage(V) 25 35 50 63 80 Tanδ 0.14 0.12 0.10 0.08 0.08 (at 20°C, 120Hz)	
ESR	Less than or equal to the value of Standard Ratings (at 20°C, 100kHz)	
Low temperature characteristics (Impedance ratio at 100kHz)	Z (-25 ℃) / Z (+20 ℃) ≤ 1.5 Z (-55 ℃) / Z (+20 ℃) ≤ 2.0	
Endurance	125°C, 4,000 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 125°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)	
Damp Heat (Steady State)	85°C, 85% RH, 2,000 hrs, rated voltage applied	
	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

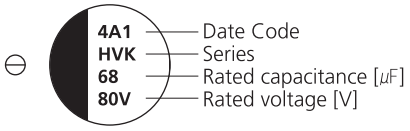
Example: HVS series, 80V / 33μF / Vibration resistant structure

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

• Frequency coefficient for ripple current

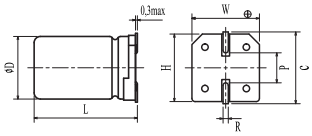
Frequency	120Hz	1kHz	10kHz	100kHz
Coefficient	0.15	0.40	0.75	1.00

• Marking and Dimensions

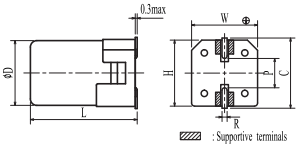


• Dimensions

[Standard]



[Vibration Resistance]



[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 (125°C, 100kHz) [mArms]	Part Number
25	47	5.0 x 5.9	80	850	25HVK47MB6
	56	5.0 x 5.9	60	900	25HVK56MB6
	68	6.3 x 5.9	50	1300	25HVK68MC6☐
	82	6.3 x 5.9	50	1300	25HVK82MC6☐
	150	6.3 x 7.7	30	1800	25HVK150MC8☐
	270	8.0 x 9.7	27	2000	25HVK270MD10☐
	470	10.0 x 10.5	20	2800	25HVK470ME10☐
	680	10.0 x 16.5	11	5700	25HVK680ME16☐
35	33	5.0 x 5.9	100	750	35HVK33MB6
	56	6.3 x 5.9	60	1200	35HVK56MC6☐
	100	6.3 x 7.7	35	1700	35HVK100MC8☐
	180	8.0 x 9.7	27	2000	35HVK180MD10☐
	330	10.0 x 10.5	20	2800	35HVK330ME10☐
	470	10.0 x 16.5	11	5700	35HVK470ME16☐
50	100	10.0 x 10.5	28	3000	50HVK100ME10☐
	220	10.0 x 16.5	13	5100	50HVK220ME16☐
63	82	10.0 x 10.5	30	1400	63HVK82ME10☐
	100	10.0 x 12.5	28	2100	63HVK100ME12☐
	150	10.0 x 16.5	15	4900	63HVK150ME16☐
	180	10.0 x 16.5	15	4900	63HVK180ME16☐
80	68	10.0 x 12.5	32	3500	63HVK68ME12☐
	100	10.0 x 16.5	16	4400	63HVK100ME16☐

*Terminal Code : V(Vibration-proof products)