

SMD Aluminum Electrolytic Capacitors

VEC Series

◆ This series is not recommended for new design

Features

- 4 ϕ ~ 6.3 ϕ , 85°C, 2,000 hours assured
- Low Leakage Current Lead free reflow soldering is available
- Designed for surface mounting on high density PC board
- RoHS compliance
- AEC-Q200 Parts Available: Replace "S" Suffix with "KS" Suffix or "LS" Suffix

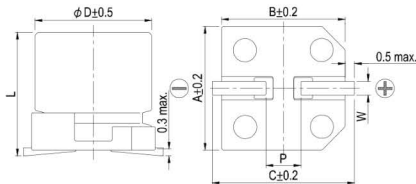


Marking color: Black

Specifications

Items	Performance							
Category Temperature Range	-40℃ ~ +85℃							
Capacitance Tolerance	±20% (at 120 Hz, 20℃)							
Leakage Current (at 20℃)	I = 0.002CV or 0.5 (μA) whichever is greater (after 2 minutes) Where, C = rated capacitance in μF, V = rated DC working voltage in V							
Tanδ (at 120 Hz, 20℃)	Rated Voltage	6.3	10	16	25	35	50	
	Tanδ (max)	0.28	0.24	0.20	0.14	0.12	0.10	
Low Temperature Characteristics (at 120 Hz)	Impedance ratio shall not exceed the values given in the table below.							
	Rated Voltage		6.3	10	16	25	35	50
	Impedance Ratio	Z(-25℃)/Z(+20℃)	3	3	2	2	2	2
Z(-40℃)/Z(+20℃)		8	5	4	3	3	3	
Endurance	Test Time		2,000 Hrs					
	Capacitance Change		Within ±20% of initial value					
	Tanδ		Less than 200% of specified value					
	Leakage Current		Within specified value					
	* The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied for 2,000 hours at 85℃.							
Shelf Life Test	The specifications shall be satisfied the same as endurance when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 85℃ without voltage applied.							
Ripple Current and Frequency Multipliers	Frequency (Hz)		50	120	1k	10k up		
	Multiplier		0.7	1.0	1.3	1.4		

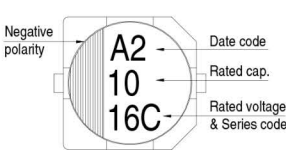
Diagram of Dimensions



Lead Spacing and Diameter

Unit: mm						
ϕD	L	A	B	C	W	P ± 0.2
4	5.3 ± 0.2	4.3	4.3	5.1	0.5 ~ 0.8	1.0
5	5.3 ± 0.2	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	5.3 ± 0.2	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	7.7 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0

Marking



Dimension and Permissible Ripple Current

Dimension: ϕ D × L(mm)
Ripple Current: mA/rms at 120 Hz, 85°C

Rated Volt. (Vdc)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)	
Cap. (μF)	Contents	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA
1	010											4×5.3	10
2.2	2R2											4×5.3	15
3.3	3R3											4×5.3	19
4.7	4R7							4×5.3	19	4×5.3	20	5×5.3	26
10	100			4×5.3	23	4×5.3	26	5×5.3	32	5×5.3	34	6.3×5.3	44
22	220	4×5.3	31	5×5.3	39	5×5.3	44	6.3×5.3	55	6.3×5.3	59	6.3×5.3	56
33	330	5×5.3	44	5×5.3	48	6.3×5.3	63	6.3×5.3	67	6.3×5.3	71		
47	470	5×5.3	52	6.3×5.3	67	6.3×5.3	75	6.3×5.3	79				
100	101	6.3×5.3	89	6.3×5.3	98	6.3×7.7	103	6.3×7.7	105				
150	151	6.3×7.7	125	6.3×7.7	135								

Part Numbering System

VEC Series	10μF	±20%	16V	Carrier Tape	4 ϕ ×5.3L		
VEC	100	M	1C	TR	-	0405	S
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Package Type	Terminal Type	Case Size	Regional Code

Note: For more details, please refer to "Part Numbering System (SMD Type)" on page 15.