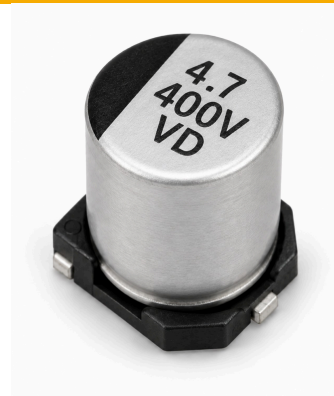


KVD Series

SMD Aluminium Electrolytic Capacitors (V-chip)

Features

- Designed for High Voltage
- Designed for reflow soldering
- Designed for surface mounting on high-density PCB
- RoHS 2.0 compliant
- 219 SVHC & REACH compliant



TEMPERATURE RANGE
-40°C ... +105°C

RATED VOLTAGE
400 V

CAPACITANCE
2.2 – 10 μ F

ENDURANCE
105°C 5000 h

Specifications

Category temp. range	-40°C to +105°C	
Capacitance tolerance	±20% (120 Hz / +20 °C)	
Leakage current	I ≤ 0.04 CV +100μA, after 5 minutes	
Tan δ	See the characteristics list	
Endurance	After applying rated working voltage for 5000 hours at +105 °C ± 2 °C, and then being stabilized at +20 °C, capacitors shall meet the following limits.	
	Capacitance change	Within ±30% of the initial value
	Dissipation factor (tan δ)	Less than 300% of the initial value
	Leakage current	Within the initial limit
Shelf life	After storage for 1000 h at +105 °C ± 2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in endurance.	
Resistance to soldering heat	After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.	
	Capacitance change	Within ±10% of the initial value
	Dissipation factor (tan δ)	Within the initial limit
	Leakage current	Within the initial limit

Low-temperature characteristics

Rated voltage (V)	400
Z(-25°C)/Z(+20°C)	6
Z(-40°C)/Z(+20°C)	10

Impedance ratio at 120 Hz

Ripple current frequency correction factor

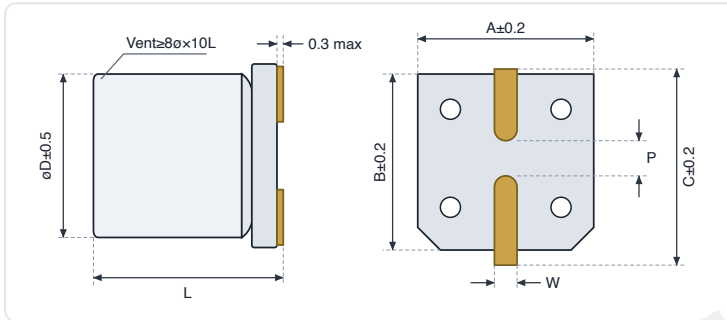
Frequency	50Hz	120Hz	1kHz	10kHz $\leq$
Correction Factor	0.7	1.0	1.3	1.4

Standard ratings

$\mu F \setminus V$	400
2.2	8×10.5
3.3	8×10.5
4.7	8×10.5 8×13 10×10.5
5.6	8×13 10×10.5
6.8	10×10.5
8.2	10×13
10	10×13

Case size $\Phi D \times L$ (mm). Full ratings in the characteristics list.

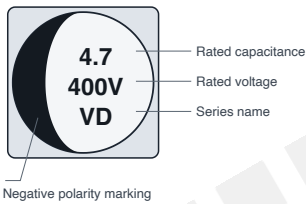
Dimensions and marking



ΦD	L	A	B	C	W	P ± 0.2
8	10.5 ± 0.5	8.3	8.3	9.2	0.7~1.2	3.1
8	13 ± 0.5	8.3	8.3	9.2	0.7~1.2	3.1
10	10.5 ± 0.5	10.3	10.3	11.2	0.7~1.2	4.4
10	13 ± 0.5	10.3	10.3	11.2	0.7~1.2	4.4

Unit: mm

Example



Marking: black

Part number system

KVD Series name KVD series	2G Rated voltage 400V	4R7 Capacitance 4.7 μF	M Capacitance tolerance $\pm 20\%$	0810 Case Size 8 Φ X10.5L
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Example: KVD2G4R7M0810

Characteristics list

Rated voltage (V)	Capacitance ($\pm 20\%$) (μF)	ΦD (mm)	L (mm)	Rated ripple current ^① (mA rms)	$\tan \delta$ ^②	Part Number ^③	MPQ (pcs/reel)
400	2.2	8	10.5	15	0.25	KVD2G2R2M0810	500
400	3.3	8	10.5	20	0.25	KVD2G3R3M0810	500
400	4.7	8	10.5	25	0.25	KVD2G4R7M0810	500
400	4.7	8	13	30	0.25	KVD2G4R7M0813	400
400	4.7	10	10.5	30	0.25	KVD2G4R7M1010	500
400	5.6	8	13	35	0.25	KVD2G5R6M0813	400
400	5.6	10	10.5	35	0.25	KVD2G5R6M1010	500
400	6.8	10	10.5	45	0.25	KVD2G6R8M1010	500
400	8.2	10	13	55	0.25	KVD2G8R2M1013	400
400	10	10	13	60	0.25	KVD2G10M1013	400

① Rated ripple current (120Hz / +105°C)

② $\tan \delta$ (120Hz / +20°C)

③ For plastic reel packaging, the Part Number is appended with "PR" at the end.

All product specifications in the catalog are subject to change without notice. Ask factory for the current technical specifications before purchase. (CAT.2021L1)