KVA Series

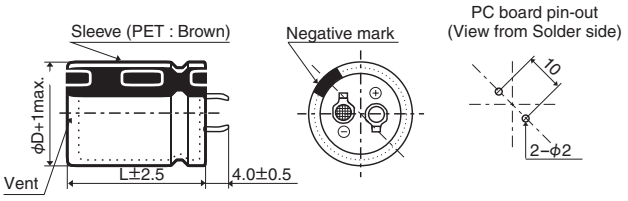
- Designed for automotive application (including On Board Charger) by high vibration resistance structure.
- Endurance with ripple current : 2,000 hours at 105℃
- Rated voltage range : 450Vdc, Capacitance range : 160 to 970μF
- Non solvent resistant type
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

◆SPECIFICATIONS

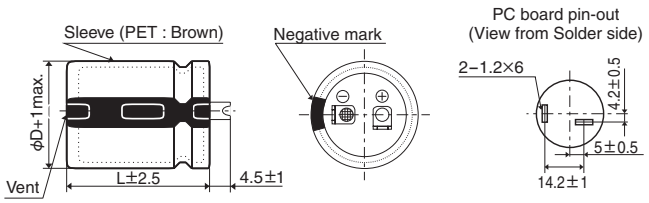
Items	Characteristics		
Category Temperature Range	-40 to +105℃		
Rated Voltage Range	450Vdc		
Capacitance Tolerance	±20% (M)		(at 20℃, 120Hz)
Leakage Current	I≦3√CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)		(at 20℃ after 5 minutes)
Dissipation Factor (tan δ)	Rated voltage (Vdc)	450V	
	tan δ (Max.)	0.20	(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	450V	
	Z(-25℃)/Z(+20℃)	8	(at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 2,000 hours at 105℃.		
	Capacitance change	≦±20% of the initial value	
	D.F. (tan δ)	≦200% of the initial specified value	
	Leakage current	≦The initial specified value	
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.		
	Capacitance change	≦±15% of the initial value	
	D.F. (tan δ)	≦150% of the initial specified value	
	Leakage current	≦The initial specified value	
Vibration	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to vibration test (vibration profile shown below) at room temperature (15 to 35℃).		
	Capacitance change	≦±5% of the initial value	
	D.F. (tan δ)	≦The initial specified value	
	Leakage current	≦The initial specified value	
	Vibration profile		
	Vibration frequency range	10 to 2,000Hz	
	Acceleration	49m/s^2(5G)	
	Sweep rate	10 to 2,000 to 10Hz 20 minutes	
	Direction and period of motion	4 hours in each of 3 mutually perpendicular directions (total of 12 hours)	
	Fixation	Securely attach the main body using a fixing tool. Please contact us for details.	

◆DIMENSIONS [mm]

●Terminal Code : VS (φ25.4 to φ35) : Standard

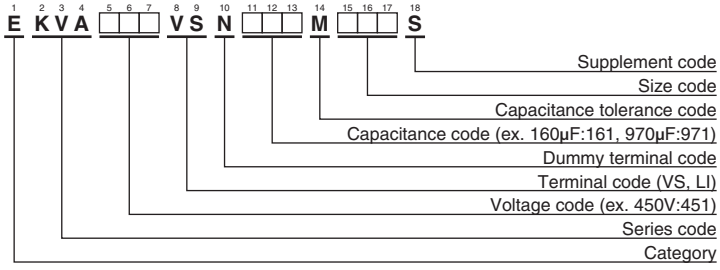


●Terminal Code : LI (φ30, φ35)



The standard design has no plastic disc.

◆PART NUMBERING SYSTEM



Please refer to "Product code guide (snap-in type)"

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KVA Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 105℃, 120Hz)	Part No.
450	160	25.4×25	0.20	0.96	EKVA451VSN161MQ25S
	210	25.4×30	0.20	1.13	EKVA451VSN211MQ30S
	230	30×25	0.20	1.18	EKVA451VSN231MR25S
	250	25.4×35	0.20	1.29	EKVA451VSN251MQ35S
	290	35×25	0.20	1.29	EKVA451VSN291MA25S
	300	25.4×40	0.20	1.44	EKVA451VSN301MQ40S
	300	30×30	0.20	1.36	EKVA451VSN301MR30S
	350	25.4×45	0.20	1.58	EKVA451VSN351MQ45S
	370	30×35	0.20	1.55	EKVA451VSN371MR35S
	390	35×30	0.20	1.52	EKVA451VSN391MA30S
	400	25.4×50	0.20	1.72	EKVA451VSN401MQ50S
	440	30×40	0.20	1.73	EKVA451VSN441MR40S

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 105℃, 120Hz)	Part No.
450	450	25.4×55	0.20	1.87	EKVA451VSN451MQ55S
	480	35×35	0.20	1.71	EKVA451VSN481MA35S
	490	25.4×60	0.20	2.00	EKVA451VSN491MQ60S
	510	30×45	0.20	1.91	EKVA451VSN511MR45S
	580	30×50	0.20	2.08	EKVA451VSN581MR50S
	580	35×40	0.20	1.95	EKVA451VSN581MA40S
	650	30×55	0.20	2.24	EKVA451VSN651MR55S
	680	35×45	0.20	2.16	EKVA451VSN681MA45S
	730	30×60	0.20	2.42	EKVA451VSN731MR60S
	780	35×50	0.20	2.36	EKVA451VSN781MA50S
	880	35×55	0.20	2.56	EKVA451VSN881MA55S
	970	35×60	0.20	2.73	EKVA451VSN971MA60S

◆RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
450V	0.77	1.00	1.16	1.30	1.41	1.43

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

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