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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

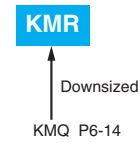
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



KMR Series

- Downsized 5mm in height from current snap-ins KMQ series
- Max. 50% up ripple current than same case size of KMQ series
- Endurance with ripple current : 2,000 hours at 105°C
- Rated voltage range : 160 to 450V_{dc}, Capacitance range : 100 to 3,300μF
- For inverter control, switching power supplies
- Non solvent resistant type
- RoHS2 Compliant

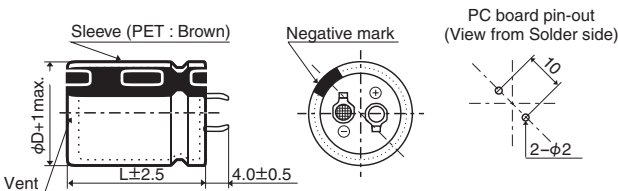


SPECIFICATIONS

Items	Characteristics			
Category	-25 to +105°C			
Temperature Range	-25 to +105°C			
Rated Voltage Range	160 to 450V _{dc}			
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)			
Leakage Current	$I \leq 3\sqrt{CV}$ Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes)			
Dissipation Factor (tan δ)	Rated voltage (V _{dc})	160 to 250V	315 to 400V	420 & 450V
	tan δ (Max.)	0.15	0.15	0.20
		(at 20°C, 120Hz)		
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	160 to 250V	315 to 400V	420 & 450V
	Z(-25°C)/Z(+20°C)	4	8	8
		(at 120Hz)		
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C 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°C.			
	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°C after exposing them for 1,000 hours at 105°C 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		

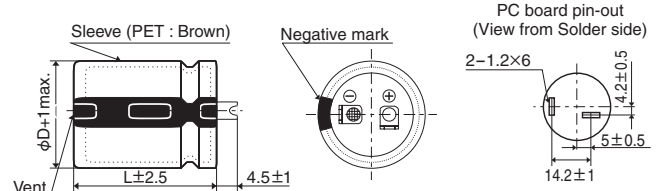
DIMENSIONS [mm]

- Terminal Code : VS (φ22 to φ35) : Standard

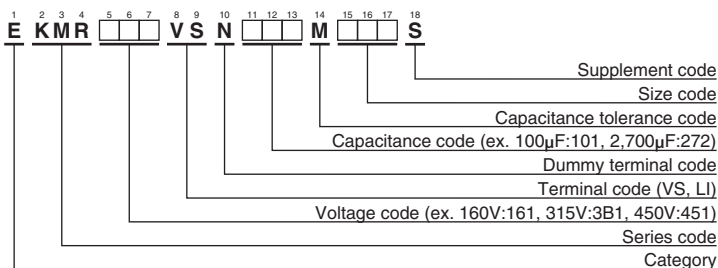


The standard design has no plastic disc.

- Terminal Code : LI (φ35)



PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	Rated ripple current (Arms/105°C,120Hz)	Part No.	WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	Rated ripple current (Arms/105°C,120Hz)	Part No.
160	560	22 × 25	1.58	EKMR161VSN561MP25S	250	330	22 × 25	1.21	EKMR251VSN331MP25S
	680	22 × 30	1.83	EKMR161VSN681MP30S		390	22 × 30	1.38	EKMR251VSN391MP30S
	820	22 × 35	2.06	EKMR161VSN821MP35S		470	22 × 35	1.56	EKMR251VSN471MP35S
	820	25.4 × 25	1.89	EKMR161VSN821MQ25S		560	22 × 40	1.74	EKMR251VSN561MP40S
	1,000	22 × 40	2.33	EKMR161VSN102MP40S		560	25.4 × 30	1.61	EKMR251VSN561MQ30S
	1,000	25.4 × 30	2.15	EKMR161VSN102MQ30S		560	30 × 25	1.42	EKMR251VSN561MR25S
	1,000	30 × 25	1.90	EKMR161VSN102MR25S		680	22 × 45	1.97	EKMR251VSN681MP45S
	1,200	22 × 45	2.61	EKMR161VSN122MP45S		680	25.4 × 35	1.85	EKMR251VSN681MQ35S
	1,200	22 × 50	2.69	EKMR161VSN122MP50S		820	25.4 × 40	2.08	EKMR251VSN821MQ40S
	1,200	25.4 × 35	2.45	EKMR161VSN122MQ35S		820	25.4 × 45	2.13	EKMR251VSN821MQ45S
	1,500	25.4 × 40	2.82	EKMR161VSN152MQ40S		820	30 × 30	1.77	EKMR251VSN821MP30S
	1,500	25.4 × 45	2.88	EKMR161VSN152MQ45S		820	35 × 25	1.60	EKMR251VSN821MA25S
	1,500	30 × 30	2.39	EKMR161VSN152MR30S		1,000	25.4 × 50	2.40	EKMR251VSN102MQ50S
	1,500	35 × 25	2.17	EKMR161VSN152MA25S		1,000	30 × 35	2.03	EKMR251VSN102MR35S
	1,800	25.4 × 50	3.22	EKMR161VSN182MQ50S		1,200	30 × 40	2.31	EKMR251VSN122MR40S
	1,800	30 × 35	2.73	EKMR161VSN182MR35S		1,200	30 × 45	2.38	EKMR251VSN122MR45S
	1,800	30 × 40	2.82	EKMR161VSN182MR40S		1,200	35 × 35	2.06	EKMR251VSN122MA35S
	1,800	35 × 30	2.47	EKMR161VSN182MA30S		1,500	30 × 50	2.73	EKMR251VSN152MR50S
	2,200	30 × 45	3.23	EKMR161VSN222MR45S		1,500	35 × 40	2.41	EKMR251VSN152MA40S
	2,200	35 × 35	2.79	EKMR161VSN222MA35S		1,800	35 × 45	2.72	EKMR251VSN182MA45S
2,700	30 × 50	3.66	EKMR161VSN272MR50S	2,200	35 × 50	3.10	EKMR251VSN222MA50S		
2,700	35 × 40	3.23	EKMR161VSN272MA40S	315	180	22 × 25	0.91	EKMR3B1VSN181MP25S	
3,300	35 × 45	3.68	EKMR161VSN332MA45S		220	22 × 30	1.06	EKMR3B1VSN221MP30S	
180	470	22 × 25	1.45		EKMR181VSN471MP25S	270	22 × 35	1.20	EKMR3B1VSN271MP35S
	560	22 × 30	1.66		EKMR181VSN561MP30S	270	25.4 × 25	1.15	EKMR3B1VSN271MQ25S
	680	22 × 35	1.87		EKMR181VSN681MP35S	330	22 × 40	1.37	EKMR3B1VSN331MP40S
	680	25.4 × 25	1.72		EKMR181VSN681MQ25S	330	25.4 × 30	1.30	EKMR3B1VSN331MQ30S
	820	22 × 40	2.11		EKMR181VSN821MP40S	390	22 × 45	1.52	EKMR3B1VSN391MP45S
	820	25.4 × 30	1.94		EKMR181VSN821MQ30S	390	25.4 × 35	1.48	EKMR3B1VSN391MQ35S
	1,000	22 × 45	2.38		EKMR181VSN102MP45S	390	30 × 25	1.39	EKMR3B1VSN391MR25S
	1,000	25.4 × 35	2.24		EKMR181VSN102MQ35S	470	22 × 50	1.72	EKMR3B1VSN471MP50S
	1,000	30 × 25	1.90		EKMR181VSN102MR25S	470	25.4 × 40	1.67	EKMR3B1VSN471MQ40S
	1,200	22 × 50	2.69		EKMR181VSN122MP50S	470	30 × 30	1.57	EKMR3B1VSN471MR30S
	1,200	25.4 × 40	2.52	EKMR181VSN122MQ40S	470	35 × 25	1.52	EKMR3B1VSN471MA25S	
	1,200	30 × 30	2.14	EKMR181VSN122MR30S	560	25.4 × 45	1.86	EKMR3B1VSN561MQ45S	
	1,200	35 × 25	1.94	EKMR181VSN122MA25S	560	30 × 35	1.78	EKMR3B1VSN561MR35S	
	1,500	25.4 × 45	2.88	EKMR181VSN152MQ45S	680	25.4 × 50	2.10	EKMR3B1VSN681MQ50S	
	1,500	25.4 × 50	2.94	EKMR181VSN152MQ50S	680	30 × 40	2.03	EKMR3B1VSN681MR40S	
	1,500	30 × 35	2.49	EKMR181VSN152MR35S	680	35 × 30	1.90	EKMR3B1VSN681MA30S	
1,800	30 × 40	2.82	EKMR181VSN182MR40S	820	30 × 45	2.31	EKMR3B1VSN821MR45S		
1,800	35 × 30	2.47	EKMR181VSN182MA30S	820	35 × 35	2.13	EKMR3B1VSN821MA35S		
2,200	30 × 45	3.23	EKMR181VSN222MR45S	1,000	30 × 50	2.61	EKMR3B1VSN102MR50S		
2,200	30 × 50	3.31	EKMR181VSN222MR50S	1,000	35 × 40	2.46	EKMR3B1VSN102MA40S		
2,200	35 × 35	2.79	EKMR181VSN222MA35S	1,200	35 × 45	2.78	EKMR3B1VSN122MA45S		
2,200	35 × 40	2.92	EKMR181VSN222MA40S	1,200	35 × 50	2.86	EKMR3B1VSN122MA50S		
2,700	35 × 45	3.33	EKMR181VSN272MA45S	350	150	22 × 25	0.84	EKMR351VSN151MP25S	
200	560	22 × 30	1.66		EKMR201VSN561MP30S	220	22 × 30	1.06	EKMR351VSN221MP30S
	560	25.4 × 25	1.56		EKMR201VSN561MQ25S	220	25.4 × 25	1.04	EKMR351VSN221MQ25S
	680	22 × 35	1.87		EKMR201VSN681MP35S	270	22 × 35	1.20	EKMR351VSN271MP35S
	680	25.4 × 30	1.77		EKMR201VSN681MQ30S	270	25.4 × 30	1.18	EKMR351VSN271MQ30S
	820	22 × 40	2.11		EKMR201VSN821MP40S	330	22 × 40	1.37	EKMR351VSN331MP40S
	820	25.4 × 35	2.03		EKMR201VSN821MQ35S	330	22 × 45	1.40	EKMR351VSN331MP45S
	820	30 × 25	1.72		EKMR201VSN821MR25S	330	25.4 × 35	1.36	EKMR351VSN331MQ35S
	1,000	22 × 50	2.45		EKMR201VSN102MP50S	330	30 × 25	1.28	EKMR351VSN331MR25S
	1,000	25.4 × 40	2.30		EKMR201VSN102MQ40S	390	22 × 50	1.56	EKMR351VSN391MP50S
	1,000	30 × 30	1.95		EKMR201VSN102MR30S	390	25.4 × 40	1.52	EKMR351VSN391MQ40S
	1,200	25.4 × 45	2.58		EKMR201VSN122MQ45S	390	30 × 30	1.43	EKMR351VSN391MR30S
	1,200	30 × 35	2.23		EKMR201VSN122MR35S	390	35 × 25	1.38	EKMR351VSN391MA25S
	1,200	35 × 25	1.94		EKMR201VSN122MA25S	470	25.4 × 45	1.71	EKMR351VSN471MQ45S
	1,500	25.4 × 50	2.94		EKMR201VSN152MQ50S	560	25.4 × 50	1.90	EKMR351VSN561MQ50S
	1,500	30 × 40	2.58		EKMR201VSN152MR40S	560	30 × 35	1.78	EKMR351VSN561MR35S
	1,500	35 × 30	2.25		EKMR201VSN152MA30S	560	30 × 40	1.84	EKMR351VSN561MR40S
	1,800	30 × 45	2.92		EKMR201VSN182MR45S	560	35 × 30	1.72	EKMR351VSN561MA30S
	1,800	35 × 35	2.53	EKMR201VSN182MA35S	680	30 × 45	2.10	EKMR351VSN681MR45S	
	2,200	30 × 50	3.31	EKMR201VSN222MR50S	680	35 × 35	1.94	EKMR351VSN681MA35S	
	2,200	35 × 40	2.92	EKMR201VSN222MA40S	820	30 × 50	2.36	EKMR351VSN821MR50S	
2,700	35 × 45	3.33	EKMR201VSN272MA45S						

◆STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	Rated ripple current (Arms/105°C, 120Hz)	Part No.	WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	Rated ripple current (Arms/105°C, 120Hz)	Part No.
350	820	35 × 40	2.23	EKMR351VSN821MA40S	420	270	25.4 × 40	1.32	EKMR421VSN271MQ40S
	1,000	35 × 45	2.54	EKMR351VSN102MA45S		270	30 × 30	1.26	EKMR421VSN271MR30S
	1,200	35 × 50	2.86	EKMR351VSN122MA50S		270	35 × 25	1.26	EKMR421VSN271MA25S
400	120	22 × 25	0.75	EKMR401VSN121MP25S		330	25.4 × 45	1.49	EKMR421VSN331MQ45S
	180	22 × 30	0.96	EKMR401VSN181MP30S		330	30 × 35	1.45	EKMR421VSN331MR35S
	180	25.4 × 25	0.94	EKMR401VSN181MQ25S		390	25.4 × 50	1.66	EKMR421VSN391MQ50S
	220	22 × 35	1.09	EKMR401VSN221MP35S		390	30 × 40	1.63	EKMR421VSN391MR40S
	220	25.4 × 30	1.07	EKMR401VSN221MQ30S		390	35 × 30	1.58	EKMR421VSN391MA30S
	270	22 × 40	1.24	EKMR401VSN271MP40S		470	30 × 45	1.85	EKMR421VSN471MR45S
	270	22 × 45	1.26	EKMR401VSN271MP45S		470	35 × 35	1.77	EKMR421VSN471MA35S
	270	25.4 × 35	1.23	EKMR401VSN271MQ35S		560	30 × 50	2.07	EKMR421VSN561MR50S
	270	30 × 25	1.16	EKMR401VSN271MR25S		560	35 × 40	2.02	EKMR421VSN561MA40S
	330	22 × 50	1.44	EKMR401VSN331MP50S		680	35 × 45	2.29	EKMR421VSN681MA45S
	330	25.4 × 40	1.40	EKMR401VSN331MQ40S		820	35 × 50	2.59	EKMR421VSN821MA50S
	330	30 × 30	1.31	EKMR401VSN331MR30S		450	100	22 × 25	0.71
	330	35 × 25	1.27	EKMR401VSN331MA25S	120		22 × 30	0.82	EKMR451VSN121MP30S
	390	25.4 × 45	1.55	EKMR401VSN391MQ45S	150		22 × 35	0.94	EKMR451VSN151MP35S
	390	30 × 35	1.49	EKMR401VSN391MR35S	150		25.4 × 25	0.89	EKMR451VSN151MQ25S
	470	25.4 × 50	1.74	EKMR401VSN471MQ50S	180		22 × 40	1.05	EKMR451VSN181MP40S
	470	30 × 40	1.69	EKMR401VSN471MR40S	180		25.4 × 30	1.00	EKMR451VSN181MQ30S
	470	35 × 30	1.58	EKMR401VSN471MA30S	220		22 × 45	1.19	EKMR451VSN221MP45S
	560	30 × 45	1.91	EKMR401VSN561MR45S	220		25.4 × 35	1.16	EKMR451VSN221MQ35S
	560	35 × 35	1.76	EKMR401VSN561MA35S	220		30 × 25	1.11	EKMR451VSN221MR25S
	680	30 × 50	2.15	EKMR401VSN681MR50S	270		22 × 50	1.36	EKMR451VSN271MP50S
680	35 × 40	2.03	EKMR401VSN681MA40S	270	25.4 × 40		1.32	EKMR451VSN271MQ40S	
820	35 × 45	2.30	EKMR401VSN821MA45S	270	25.4 × 45		1.35	EKMR451VSN271MQ45S	
820	35 × 50	2.37	EKMR401VSN821MA50S	270	30 × 30		1.26	EKMR451VSN271MR30S	
1,000	35 × 50	2.50	EKMR401VSN102MA50S	270	35 × 25		1.26	EKMR451VSN271MA25S	
420	120	22 × 25	0.78	EKMR421VSN121MP25S	330		25.4 × 50	1.52	EKMR451VSN331MQ50S
	150	22 × 30	0.91	EKMR421VSN151MP30S	330		30 × 35	1.45	EKMR451VSN331MR35S
	150	25.4 × 25	0.89	EKMR421VSN151MQ25S	330		35 × 30	1.45	EKMR451VSN331MA30S
	180	22 × 35	1.03	EKMR421VSN181MP35S	390		30 × 40	1.63	EKMR451VSN391MR40S
	180	25.4 × 30	1.00	EKMR421VSN181MQ30S	470		30 × 45	1.85	EKMR451VSN471MR45S
	220	22 × 40	1.16	EKMR421VSN221MP40S	470		30 × 50	1.90	EKMR451VSN471MR50S
	220	22 × 45	1.19	EKMR421VSN221MP45S	470		35 × 35	1.77	EKMR451VSN471MA35S
	220	25.4 × 35	1.16	EKMR421VSN221MQ35S	560	35 × 40	2.02	EKMR451VSN561MA40S	
	220	30 × 25	1.11	EKMR421VSN221MR25S	560	35 × 45	2.08	EKMR451VSN561MA45S	
	270	22 × 50	1.36	EKMR421VSN271MP50S	680	35 × 50	2.36	EKMR451VSN681MA50S	

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
160 to 250V _{dc}	0.81	1.00	1.17	1.32	1.45	1.50
315 to 450V _{dc}	0.77	1.00	1.16	1.30	1.41	1.43

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.