

# KM Series

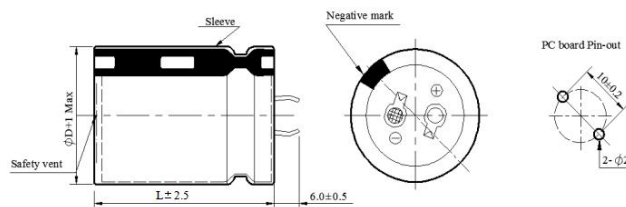
- Large size for PCB board mounting hole.
- Load life 2,000 hours at 105°C.

◆ **SPECIFICATIONS**

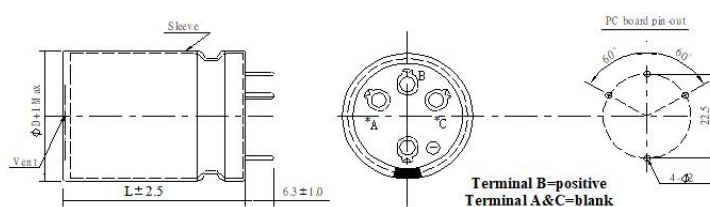
Item	Performance Characteristics												
Category Temperature Range	-40 ~ +105°C					-25 ~ +105°C							
Working Voltage Range	16~ 100Vdc					160 ~ 550Vdc							
Capacitance Range	560~56,000µF					39~2,200µF							
Capacitance Tolerance	±20% (at 20°C and 120Hz)												
Dissipation Factor (tan δ) (at 20°C, 120Hz)	Rated Voltage (V)	16	25	35	50	63	80	100 ~ 250	350 ~ 450	475~550			
	tan δ (Max)	0.35	0.35	0.25	0.25	0.25	0.20	0.15	0.15	0.20			
The above values should be increased by 0.02 for every additional 1000µF													
Leakage Current	$I \leq 3 \sqrt{CV}$ I : Leakage current (µA) C : Rated capacitance (µF) V : Rated voltage (V) Apply rated voltage the rated voltage for 5 minutes.												
Low Temperature Characteristics Impedance Ratio(MAX)	Rated Voltage (V)	16	25	35	50	63	80~100	100	160~250	350	400	420~550	(at 120Hz)
	Z(-25°C)/Z(+20°C)	—	—	—	—	—	—	—	4	4	4	8	
	Z(-40°C)/Z(+20°C)	15	10	8	6	6	5	5	6	6	6	10	
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 for 2,000 hours at 105°C.												
	Capacitance change	≧ ±20% of the initial value											
	Dissipation factor(tan δ)	≧ 200% of the specified value											
	Leakage current	≧ specified value											
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 20°C after the rated voltage applied for 1,000 hours at 105°C without voltage applied.												
	Capacitance change	≧ ±20% of the initial value											
	Dissipation factor(tan δ)	≧ 150% of the specified value											
	Leakage current	≧ 200% of the specified value											
Others	Conforms to JIS-C-5101-4 (1998) and IEC 60384-4												

◆ **DIMENSIONS(mm)**

Terminal Code :S2

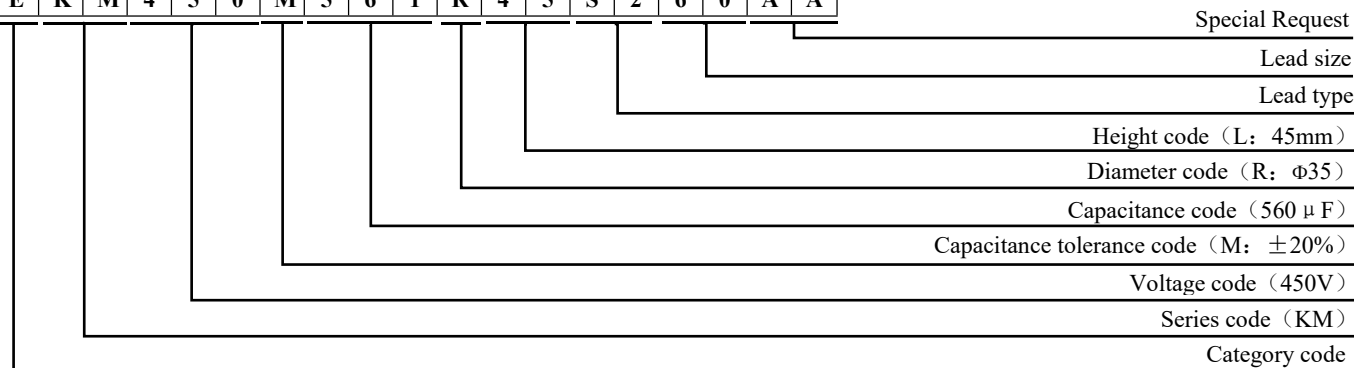


Terminal Code :S4



◆ **PART NUMBER SYSTEM( Example : 450V 560µF )**

E	K	M	4	5	0	M	5	6	1	R	4	5	S	2	6	0	A	A
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# KM Series

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz

uF	Vdc		16								Vdc		25							
	ΦD	RC	Φ 22		Φ 25		Φ30		Φ35		ΦD	RC	Φ 22		Φ 25		Φ30		Φ35	
			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
6800	22×25	1620								4700	22×25	1600								
10000	22×25	1880	25×25	2020						5600	22×30	1820								
12000	22×30	2140	25×25	2140	30×25	2450				6800	22×35	2060	25×25	1860						
15000	22×35	2250	25×30	2380	30×25	2520				8200	22×40	2310	25×30	2320	30×25	2150				
18000	22×40	2470	25×30	2620	30×25	2580	35×25	2620		10000	22×45	2630	25×35	2620	30×30	2670				
22000	22×45	2610	25×35	3040	30×30	2990	35×25	2930		12000	22×50	2790	25×40	2840	30×30	2780	35×30	3240		
27000	22×50	3150	25×40	3360	30×30	3370	35×30	3380		15000			25×45	3250	30×35	3150	35×35	3570		
33000					30×40	3400	35×30	3980		18000			25×50	3540	30×40	3580	35×40	3780		
39000					30×40	3810	35×35	4360		22000					30×45	4040	35×45	4600		
47000					30×45	4200	35×40	4900		27000							35×50	5330		
56000							35×45	5430												

uF	Vdc		35								Vdc		50							
	ΦD	RC	Φ 22		Φ 25		Φ30		Φ35		ΦD	RC	Φ 22		Φ 25		Φ30		Φ35	
			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
3300	22×25	1480								1800	22×25	1340								
3900	22×30	1670								2200	22×30	1750	25×25	1710						
4700	22×35	1950	25×25	1700						3300	22×35	1920	25×30	1860						
5600	22×35	2150	25×30	1960	30×25	1990				3900	22×40	2220	25×35	2190	30×25	2180				
6800	22×40	2380	25×35	2330	30×25	2340				4700	22×45	2380	25×35	2430	30×30	2350	35×25	2380		
8200	22×45	2810	25×40	2710	30×30	2720	35×25	2750		5600	22×50	2760	25×40	2710	30×35	2730	35×25	2780		
10000			25×45	3050	30×35	2950	35×30	2910		6800			25×50	3310	30×40	3300	35×30	3350		
12000			25×50	3340	30×40	3250	35×30	3375		8200					30×45	3550	35×35	3580		
15000					30×45	3750	35×35	3650		10000					30×50	3840	35×40	3840		
18000							35×40	4350		12000							35×45	4440		
22000							35×45	4900		15000							35×50	4750		

uF	Vdc		63								Vdc		80							
	ΦD	RC	Φ 22		Φ 25		Φ30		Φ35		ΦD	RC	Φ 22		Φ 25		Φ30		Φ35	
			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
1200	22×25	1210								820	22×25	1150								
1500	22×25	1330								1000	22×25	1320								
1800	22×30	1510	25×25	1530						1200	22×30	1580	25×25	1590						
2200	22×35	1730	25×30	1740						1500	22×35	1790	25×30	1810						
2700	22×40	1970	25×35	1990	30×25	1890				1800	22×40	2000	25×30	2010	30×25	2010				
3300	22×50	2290	25×40	2290	30×30	2240	35×25	2155		2200	22×45	2340	25×35	2350	30×30	2350	35×25	2470		
3900			25×45	2540	30×35	2550	35×25	2420		2700			25×45	2660	30×35	2650	35×30	2590		
4700			25×50	2860	30×40	2860	35×30	2790		3300			25×50	2980	30×40	2980	35×30	2780		
5600					30×45	3220	35×35	3190		3900					30×45	3300	35×35	2980		
6800					30×50	3650	35×40	3640		4700					30×50	3690	35×40	3380		
8200							35×45	3900		5600							35×45	3800		
10000							35×50	4400		6800							35×50	4100		

# KM Series

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz

uF	Vdc		100								uF	Vdc		160							
	ΦD	ΦD	Φ 22		Φ 25		Φ 30		Φ 35			ΦD	ΦD	Φ 22		Φ 25		Φ 30		Φ 35	
			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC				ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
560	22×25	1080								220	22×25	980									
820	22×30	1320	25×25	1380						330	22×25	1015									
1000	22×30	1460	25×25	1510						390	22×30	1330									
1200	22×35	1690	25×30	1750	30×25	1770				470	22×30	1460	25×25	1460							
1500	22×40	1960	25×35	1990	30×25	2050	35×25	2080		560	22×40	1750	25×30	1730							
1800	22×45	2220	25×40	2230	30×30	2300	35×25	2370		680	22×40	2000	25×35	2000	30×25	2000					
2200			25×45	2565	30×35	2550	35×30	2500		820	22×45	2110	25×40	2100	30×30	2110	35×25	2130			
2700			25×50	2820	30×40	2880	35×35	2860		1000			25×45	2215	30×35	2390	35×30	2315			
3300					30×45	3300	35×35	3270		1200			25×50	2575	30×40	2675	35×35	2675			
3900					30×50	3580	35×40	3670		1500					30×45	3140	35×40	3040			
4700							35×45	3800		1800					30×50	3370	35×40	3080			
5600							35×50	4000		2200							35×45	3500			

uF	Vdc		200								uF	Vdc		220							
	ΦD	ΦD	Φ 22		Φ 25		Φ 30		Φ 35			ΦD	ΦD	Φ 22		Φ 25		Φ 30		Φ 35	
			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC				ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
270	22×25	1100								220											
330	22×30	1250								270	22×25	990									
390	22×35	1310	25×25	1310						330	22×30	1160									
470	22×40	1335	25×30	1400						390	22×35	1340	25×25	1350							
560	22×45	1600	25×35	1560	30×25	1600				470	22×40	1400	25×30	1400							
680	22×50	1650	25×40	1700	30×30	1720				560	22×45	1550	25×35	1550	30×25	1550					
820			25×45	1935	30×35	1935	35×25	1935		680	22×50	1750	25×40	1750	30×30	1700					
1000			25×50	2040	30×40	2185	35×30	2185		820			25×45	1930	30×35	1900	35×25	1930			
1200					30×45	2515	35×35	2515		1000			25×50	2280	30×40	2280	35×30	2300			
1500					30×50	2925	35×40	2925		1200					30×45	2380	35×35	2380			
1800							35×45	3000		1500					30×50	2500	35×40	2500			
2200							35×50	3150		1800							35×45	2600			

uF	Vdc		250								uF	Vdc		315							
	ΦD	ΦD	Φ 22		Φ 25		Φ 30		Φ 35			ΦD	ΦD	Φ 22		Φ 25		Φ 30		Φ 35	
			ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC				ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
180	22×25	850								100	22×25	700									
220	22×25	920	25×25	920						120	22×30	730	25×25	725							
270	22×25	990	25×25	1020						150	22×30	800	25×25	790							
330	22×30	1060	25×30	1220	30×25	1250				180	22×35	890	25×30	880							
390	22×35	1215	25×30	1320	30×25	1300				220	22×40	970	25×30	960	30×25	950					
470	22×40	1390	25×35	1420	30×25	1450				270	22×45	1060	25×35	1050	30×30	1040	35×25	1100			
560	22×45	1500	25×40	1530	30×30	1500	35×25	1700		330	22×50	1130	25×40	1120	30×35	1110	35×25	1280			
680	22×50	1670	25×45	1690	30×35	1650	35×30	1910		390			25×45	1350	30×35	1330	35×30	1330			
820			25×50	2050	30×40	1920	35×35	2100		470			25×50	1600	30×40	1600	35×35	1600			
1000					30×45	2030	35×40	2585		560					30×45	1780	35×40	1780			
1200					30×50	2300	35×45	2800		680					30×50	1900	35×45	1900			
1500							35×50	3000		820							35×50	2100			

**KM Series**

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz.

uF	V <sub>dc</sub>		350								uF	V <sub>dc</sub>		375							
	ΦD		Φ 22		Φ 25		Φ 30		Φ 35			ΦD		Φ 22		Φ 25		Φ 30		Φ 35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
100	22×25	600								68	22×25	460									
120	22×30	680	25×25	670						82	22×30	550									
150	22×35	740	25×30	720						100	22×30	650	25×25	630							
180	22×40	850	25×30	840	30×25	830				120	22×35	740	25×25	720							
220	22×45	950	25×35	920	30×30	910				150	22×35	830	25×30	810	30×25	800					
270	22×50	1050	25×40	1040	30×35	1030	35×25	1020		180	22×40	920	25×35	900	30×30	890					
330			25×45	1360	30×40	1350	35×30	1360		220	22×45	1010	25×40	990	30×35	980					
390			25×50	1560	30×45	1630	35×35	1590		270	22×50	1100	25×45	1080	30×35	1070	35×25	1220			
470					30×50	1750	35×35	1870		330			25×50	1290	30×40	1280	35×30	1390			
560							35×40	2100		390					30×45	1450	35×35	1480			
680							35×45	2210		470					30×50	1650	35×40	1650			
820							35×50	2420		560							35×45	1780			
										680							35×50	1920			

uF	V <sub>dc</sub>		400								uF	V <sub>dc</sub>		420							
	ΦD		Φ 22		Φ 25		Φ 30		Φ 35			ΦD		Φ 22		Φ 25		Φ 30		Φ 35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
100	22×25	700								82	22×25	700									
120	22×30	780	25×25	770						100	22×30	780	25×25	770							
150	22×35	840	25×30	820						120	22×35	840	25×25	820							
180	22×40	950	25×35	910	30×25	950				150	22×40	950	25×30	930	30×25	910					
220	22×45	1030	25×40	1030	30×30	1020				180	22×45	1050	25×35	1040	30×30	1020					
270	22×50	1150	25×45	1160	30×30	1160	35×25	1150		220	22×50	1150	25×40	1140	30×35	1120	35×25	1120			
330			25×50	1300	30×35	1350	35×30	1370		270			25×45	1340	30×40	1320	35×30	1300			
390					30×40	1600	35×35	1600		330			25×50	1510	30×45	1500	35×35	1500			
470					30×45	1850	35×40	1880		390					30×50	1750	35×40	1740			
560					30×50	2110	35×45	2110		470							35×45	1900			
680							35×50	2220		560							35×50	2210			

uF	V <sub>dc</sub>		450								uF	V <sub>dc</sub>		475							
	ΦD		Φ 22		Φ 25		Φ 30		Φ 35			ΦD		Φ 22		Φ 25		Φ 30		Φ 35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
56	22×25	560								68	22×25	600									
68	22×25	600	25×25	600						82	22×30	700	25.4×25	690							
82	22×25	640	25×25	640						100	22×35	800	25.4×25	790							
100	22×25	680	25×25	680	30×25	680				120	22×40	880	25.4×30	900	30×25	890					
120	22×30	720	25×25	720	30×25	720				150	25×45	1050	25.4×35	1030	30×25	1040					
150	22×35	840	25×30	840	30×25	840				180	22×50	1160	25.4×40	1120	30×30	1160	35×25	1150			
180	22×40	1000	25×35	980	30×25	980				220			25.4×45	1380	30×35	1340	35×30	1130			
220	22×45	1120	25×40	1120	30×25	1100				270					30×40	1480	35×35	1500			
270	22×50	1200	25×45	1210	30×35	1210	35×25	1220													
330			25×50	1390	30×35	1390	35×30	1390													
390					30×40	1450	35×35	1480													
470					30×45	1650	35×40	1650													
560					30×45	1810	35×45	1780													
680					30×50	2120	35×50	1910													

**KM Series**

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz.

Vdc ΦD		500								Vdc ΦD		550							
		Φ 22		Φ 25		Φ 30		Φ 35				Φ 22		Φ 25		Φ 30		Φ 35	
uF		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	uF		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
39										39		22×25	330						
47		22×25	410							47		22×30	400	25×25	400				
56		22×25	500							56		22×35	450	25×30	450				
68		22×30	580							68		22×40	520	25×35	520				
82		22×30	700	25.4×25	730					82		22×45	600	25×40	600	30×25	600		
100		22×35	800	25.4×30	810					100		22×50	720	25×45	720	30×30	720		
120		22×40	900	25.4×35	890	30×25	900			120				25×50	830	30×35	830	35×25	830
150		22×50	1150	25.4×40	1100	30×30	1070	35×25	1090	150						30×40	960	35×30	960
180				25.4×45	1220	30×35	1200	35×30	1190	180						30×45	1050	35×35	1050
220				25.4×50	1330	30×40	1300	35×35	1290	220						30×50	1170	35×40	1170
270						30×45	1400	35×40	1380	270								35×45	1300
										330								35×50	1420

◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Vdc	Frequency (Hz)				
	50	120	1K	10K	≥50K
16 ~ 50	0.95	1.00	1.05	1.08	1.08
63~100	0.90	1.00	1.10	1.13	1.19
160 ~ 250	0.81	1.00	1.32	1.45	1.50
315 ~ 550	0.77	1.00	1.30	1.41	1.43