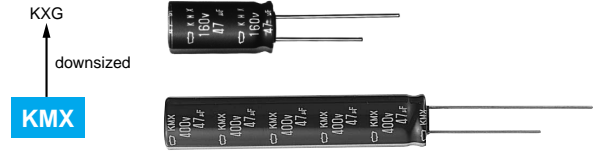


# KMX Series

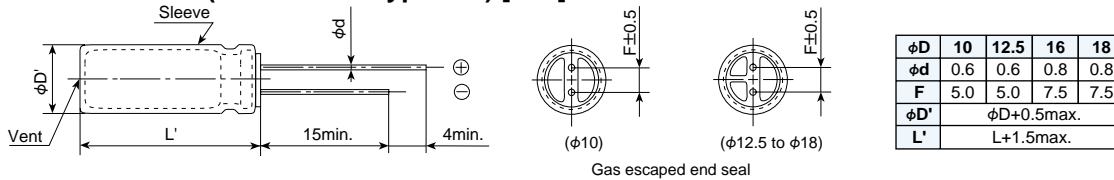
- Slender case sizes are lined up for laying down small places on PC board
- For electronic ballast circuits and other long life required applications
- Endurance with ripple current : 105°C 8000 to 10000 hours
- Non solvent-proof type



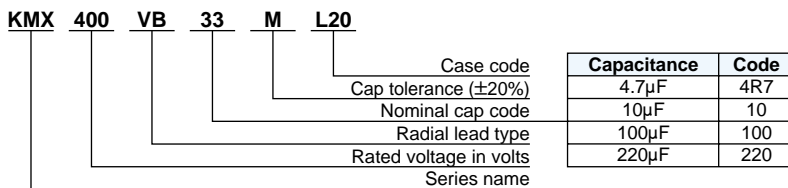
## ◆ SPECIFICATIONS

Items	Characteristics			
<b>Category</b>	—40 to +105°C (160 to 400V <sub>dc</sub> ) —25 to +105°C (450V <sub>dc</sub> )			
<b>Temperature Range</b>				
<b>Rated Voltage Range</b>	160 to 450V <sub>dc</sub>			
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)			
<b>Leakage Current</b>	CV	time	After 1 minute	After 5 minutes
	CV ≤ 1000		I = 0.1CV + 40	I = 0.03CV + 15
	CV > 1000		I = 0.04CV + 100	I = 0.02CV + 25
	Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C)			
<b>Dissipation Factor (tanδ)</b>	Rated voltage (V <sub>dc</sub> )	160 to 250V	350 & 400V	450V
	tanδ (Max.)	0.20	0.24	0.24
(at 20°C, 120Hz)				
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Rated voltage (V <sub>dc</sub> )	160 to 250V	350 & 400V	450V
	Z(-25°C)/Z(+20°C)	3	5	6
	Z(-40°C)/Z(+20°C)	6	6	—
(at 120Hz)				
<b>Endurance</b>	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 10000 hours (8000 hours for φ10) at 105°C.			
	Capacitance change	≤ ±20% of the initial value		
	D.F. (tanδ)	≤ 200% of the initial specified value		
	Leakage current	≤ The initial specified value		
<b>Shelf Life</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.			
	Capacitance change	≤ ±20% of the initial value		
	D.F. (tanδ)	≤ 200% of the initial specified value		
	Leakage current	≤ 500% of the initial specified value		

## ◆ DIMENSIONS (Radial Lead Type=VB) [mm]



## ◆ PART NUMBERING SYSTEM



**◆STANDARD RATINGS**

V <sub>dc</sub>		160					200				
Cap (μF)	Items	Case size φDXL (mm)	Case code	Impedance (Ω <sub>max./</sub> 20°C, 100kHz)	Rated ripple current		Case size φDXL (mm)	Case code	Impedance (Ω <sub>max./</sub> 20°C, 100kHz)	Rated ripple current	
					120Hz	100kHz				120Hz	100kHz
22							10×20	J20	1.5	165	440
33		10×20	J20	1.3	210	565	12.5×20	K20	0.91	230	590
47		12.5×20	K20	0.91	270	725	12.5×20	K20	0.91	270	780
68		12.5×25	K25	0.63	350	950	12.5×25	K25	0.63	350	950
		16×20	L20	0.47	430	970	16×20	L20	0.47	430	970
100		10×50	J50	0.73	475	1,280	10×50	J50	0.73	430	930
		16×25	L25	0.27	475	1,280	16×25	L25	0.27	425	1,280
		18×20	M20	0.31	465	1,180	18×20	M20	0.31	465	1,180
150		10×50	J50	0.77	545	1,020	12.5×40	K40	0.56	615	1,200
		16×25	L25	0.27	580	1,300	16×25	L25	0.27	580	1,300
220		12.5×45	K45	0.52	740	1,200	12.5×55	K55	0.39	790	1,420
		16×31.5	L31	0.22	750	1,300					
		18×25	M25	0.23	725	1,300	18×31.5	M31	0.22	780	1,700
330		16×40	L40	0.35	990	1,540					
		18×31.5	M31	0.22	960	1,700	16×50	L50	0.28	1,020	1,870
470		16×55	L55	0.25	1,220	1,870	18×50	M50	0.23	1,230	2,180
560		16×60	L60	0.23	1,350	2,140	18×60	M60	0.18	1,330	2,390
680		18×55	M55	0.20	1,480	2,330					

V <sub>dc</sub>		250					350				
Cap (μF)	Items	Case size φDXL (mm)	Case code	Impedance (Ω <sub>max./</sub> 20°C, 100kHz)	Rated ripple current		Case size φDXL (mm)	Case code	Impedance (Ω <sub>max./</sub> 20°C, 100kHz)	Rated ripple current	
					120Hz	100kHz				120Hz	100kHz
10		10×20	J20	3.5	110	300	Use KMX400VB10MJ20				
22		12.5×20	K20	2.3	185	480	12.5×20	K20	2.1	185	270
33		12.5×25	K25	1.7	250	630	16×20	L20	0.91	250	600
47		12.5×25	K25	1.7	295	630	10×50	J50	1.2	270	705
		16×20	L20	1.1	300	750	16×25	L25	0.73	325	700
							18×20	M20	0.75	350	750
68		10×50	J50	0.73	340	840	12.5×40	K40	1.1	335	895
		16×25	L25	0.78	390	1,000	16×31.5	L31	0.49	420	1,100
		18×20	M20	0.90	385	900	18×25	M25	0.53	400	875
100		12.5×40	K40	0.56	500	1,200	12.5×55	K55	0.71	435	1,050
		16×31.5	L31	0.63	520	1,400					
		18×25	M25	0.63	500	1,345	18×31.5	M31	0.40	530	1,170
150		12.5×55	K55	0.39	650	1,420					
		18×31.5	M31	0.42	640	1,450	16×50	L50	0.51	690	1,400
220		16×50	L50	0.28	820	1,710					
		18×40	M40	0.35	820	1,485	18×55	M55	0.32	840	1,610
330		18×50	M50	0.23	1,030	2,140					

V <sub>dc</sub>		400					450				
Cap (μF)	Items	Case size φDXL (mm)	Case code	Impedance (Ω <sub>max./</sub> 20°C, 100kHz)	Rated ripple current		Case size φDXL (mm)	Case code	Impedance (Ω <sub>max./</sub> 20°C, 100kHz)	Rated ripple current	
					120Hz	100kHz				120Hz	100kHz
3.3							10×20	J20	6.5	60	150
4.7							12.5×20	K20	3.6	80	200
10		10×20	J20	2.9	110	180	12.5×25	K25	2.5	125	315
22							10×45	J45	2.3	185	520
		12.5×25	K25	1.3	200	300	16×25	L25	1.7	210	570
		16×20	L20	0.91	200	600	18×20	M20	2.1	200	550
33		10×40	J40	1.7	215	640	12.5×40	K40	1.3	235	710
		16×20	L20	0.91	250	600	16×31.5	L31	1.1	275	620
							18×25	M25	1.1	280	590
47		12.5×40	K40	1.1	280	775	12.5×50	K50	0.95	300	845
		16×25	L25	0.73	325	700					
		18×20	M20	0.75	350	750	18×31.5	M31	0.93	340	900
68		12.5×50	K50	0.81	335	895					
		16×31.5	L31	0.49	420	1,100	16×40	L40	0.71	445	985
		18×25	M25	0.53	400	875	18×35.5	M35	0.71	420	980
100		16×40	L40	0.63	540	1,210	16×60	L60	0.45	570	1,300
		18×35.5	M35	0.34	545	1,250					
150		16×60	L60	0.41	695	1,490	18×60	M60	0.41	690	1,510