

KMX Series

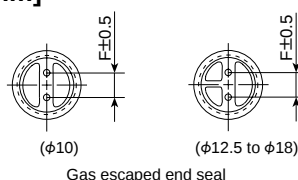
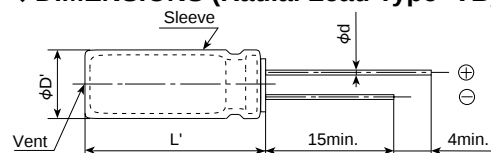
- Slender case sizes are lined up for laying down small places on PC board
- For electronic ballast circuits and other long life required applications
- Endurance with ripple current : 105°C 8000 to 10000 hours
- Non solvent-proof type



SPECIFICATIONS

Items	Characteristics				
Category					
Temperature Range	−40 to +105°C (160 to 400V _{dc}) −25 to+105°C (450V _{dc})				
Rated Voltage Range	160 to 450V _{dc}				
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)				
Leakage Current	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)				
Dissipation Factor (tanδ)	Rated voltage (V _{dc})	160 to 250V	350 & 400V	450V	(at 20°C, 120Hz)
	tanδ (Max.)	0.20	0.24	0.24	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	160 to 250V	350 & 400V	450V	(at 120Hz)
	Z(−25°C)/Z(+20°C)	3	5	6	
	Z(−40°C)/Z(+20°C)	6	6	—	
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 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			
Shelf Life	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			

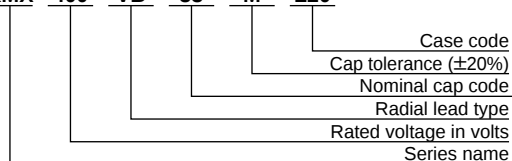
DIMENSIONS (Radial Lead Type=VB) [mm]



φD	10	12.5	16	18
φd	0.6	0.6	0.8	0.8
F	5.0	5.0	7.5	7.5
φD'	φD+0.5max.			
L'	L+1.5max.			

PART NUMBERING SYSTEM

KMX 400 VB 33 M L20



Capacitance	Code
4.7μF	4R7
10μF	10
100μF	100
220μF	220

◆STANDARD RATINGS

V _{dc} Cap (μF)	Items	160					200				
		Case size φDXL (mm)	Case code	Impedance (Ω _{max.} /20°C, 100kHz)	Rated ripple current		Case size φDXL (mm)	Case code	Impedance (Ω _{max.} /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	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
	16×31.5	L31		0.22	625	1,300	16×25	L25	0.27	580	1,300
	18×25	M25		0.23	600	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	16×50	L50	0.28	1,020	1,870
	18×31.5	M31		0.22	960	1,700					
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 _{dc}	250					350				
Cap (μF)	Case size φD×L (mm)	Case code	Impedance (Ω _{max./} 20°C, 100kHz)	Rated ripple current		Case size φD×L (mm)	Case code	Impedance (Ω _{max./} 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
68						18×20	M20	0.75	350	750
	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
100	18×20	M20	0.90	385	900	18×25	M25	0.53	400	875
	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					
150	18×25	M25	0.63	500	1,345	18×31.5	M31	0.40	530	1,170
	12.5×55	K55	0.39	650	1,420	16×50	L50	0.51	690	1,400
	18×31.5	M31	0.42	640	1,450					
220	16×50	L50	0.28	820	1,710	18×55	M55	0.32	840	1,610
	18×40	M40	0.35	820	1,485					
330	18×50	M50	0.23	1 030	2 140					

V _{dc} Cap (μF)	Items	400					450				
		Case size φDXL (mm)	Case code	Impedance (Ω _{max.} /20°C, 100kHz)	Rated ripple current		Case size φDXL (mm)	Case code	Impedance (Ω _{max.} /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
33	16×20	L20		0.91	200	600	18×20	M20	2.1	200	550
	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
47							18×25	M25	1.1	280	590
	12.5×40	K40		1.1	280	775	12.5×50	K50	0.95	300	845
	16×25	L25		0.73	325	700					
68	18×20	M20		0.75	350	750	18×31.5	M31	0.93	340	900
	12.5×50	K50		0.81	335	895	16×40	L40	0.71	445	985
	16×31.5	L31		0.49	420	1,100	18×35.5	M35	0.71	420	980
100	18×25	M25		0.53	400	875					
	16×40	L40		0.63	540	1,210	16×60	L60	0.45	570	1,300
150	18×35.5	M35		0.34	545	1,250					
	16×60	L60		0.41	695	1,490	18×60	M60	0.41	690	1,510