

LO 系列 SERIES

Long life

RoHS



- LO 系列长寿命化产品。
Long life version of LO series
- 保证 85℃、10000 小时寿命。(叠加纹波电流)
Endurance with ripple current: 10000 hours at 85℃
- 额定工作电压范围: 160V~550V
Rated voltage range: 160V-550V
- 适合转换电源及变频器等平滑用。
Ideal for switching power and inverter smoothing capacitors

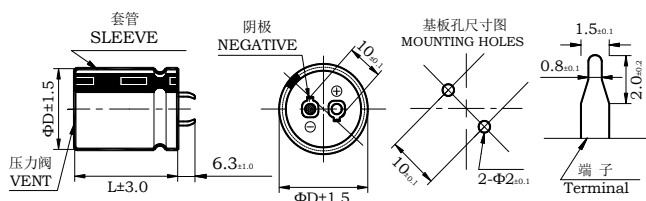
规格表 SPECIFICATIONS

项 目 Items	特 性 Characteristics					
工作温度范围 Operating Temperature Range	-25~+85℃					
额定工作电压范围 Rated Working Voltage Range	160~550V					
静电容量允许偏差 Capacitance tolerance	±20% (20℃, 120Hz)					
损耗角正切值 Dissipation Factor (MAX) 20℃, 120Hz	U _R (V)	160	200	250	400	450 500~550
	tanδ	0.15	0.15	0.15	0.15	0.20 0.20
阻抗比 Impedance Ratio (MAX) 120Hz	U _R (V)	160~200	250	400	450~550	
	Z _{-25℃} /Z _{+20℃}	3	4	7	8	
漏电流 Leakage Current (MAX)	I=0.01C _R U _R 或 1.5mA 取小者 (20℃, 施加额定电压 5 分钟后) I=0.01C _R U _R or 1.5mA whichever is minimum. (at 20℃, After 5 minutes application of rated voltage) I=漏电流 (μA) U _R =额定电压 (V) C _R =静电容量 (μF) Leakage Current Rated Voltage Rated Capacitance					

	使用寿命 Useful Life		负荷寿命 Load Life	耐久性特性 Endurance Test	高温无负荷特性 Shelf Life
产品寿命 Life Time	11000h	>200000h	10000h	10000h	1000h
漏电流 Leakage Current	≤规定值 ≤Specified value		≤规定值 ≤Specified value	≤规定值 ≤Specified value	≤规定值 ≤Specified value
损耗角正切值变化率 tanδ Change	≤规定值的 300% ≤300% of specified value		≤规定值的 200% ≤200% of specified value	≤规定值的 200% ≤200% of specified value	≤规定值的 200% ≤200% of specified value
静电容量变化率 Capacitance Change	初始值±30%以内 Within±30% of initial value		初始值±20%以内 Within±20% of initial value	初始值±20%以内 Within±20% of initial value	初始值±20%以内 Within±20% of initial value
施加条件 Condition 施加电压 Applied Voltage 施加纹波电流 Applied Ripple Current 环境温度 Applied Temperature 失效等级 Failure Rate Level	U _R I _R 85℃ ≤1% Failure rate	U _R 1.2×I _R 40℃ ≤1% Failure rate	U _R I _R 85℃ 0%	U _R I _R =0 85℃ 0%	U _R =0 I _R =0 85℃ 0% Back up to 20℃ and placed more than 24 hours. U _R to be applied for 60 min before measurement.

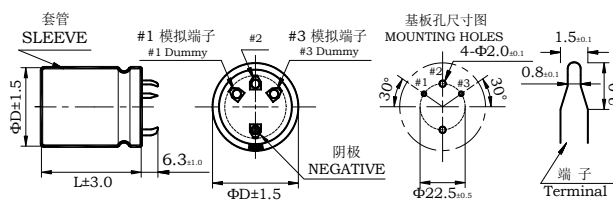
尺寸图 Dimensions

- 常用端子型式代码: Terminal Code



F-Type: Lock Terminal
J-Type: With short pin (4±1.0) Lock Terminal

Unit:mm



Φ35 O-Type
P-Type: With short pin (4±1.0) Lock Terminal

Unit:mm

- 记载以外的端子形状, 请另行咨询。Please ask for advice for other sizes.

产品编码体系 PART NUMBER SYSTEM

● 例如: Example LO 400V470μF Φ35×50 ±20%

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

L O G 4 7 1 M 3 5 0 5 0 F V A

客户特殊要求 Special requirement
套管材质代码 Sleeve Code
端子型式代码 Lead Form Code
高度代码 (例: 50→050) The height of the code (mm)
直径代码 (例: 35→35, 22→22) Diameter code (mm)
容差代码 (例: ±20%→M, ±10%→K) Capacitance Tolerance code
容量代码 (例: 470→471, 2200→222) Capacitance Code (μF)
电压代码 (例: 400V→G, 500V→C) Rated Voltage Code (V)
产品系列代码 (例: LO→LO) Series Code

纹波电流修正系数 Rated Ripple Current Multiplies

●频率修正系数 Frequency coefficient						
电压范围 (v) Rated voltage		频率 (Hz) Frequency				
		50 (60)	100 (120)	300	1k	≥10k
160~550WV		0.80	1.00	1.16	1.30	1.41
●温度修正系数 Temperature coefficient						
电压范围 (v) Rated voltage		温度 (℃) Temperature				
		+40	+55	+70	+85	
160~550WV		1.7	1.5	1.3	1.0	

LO 系列 SERIES

◆ 产品一览表 Standard Ratings

WV _{DC} (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20℃ 120Hz	ESR _{typ} 20℃ 120Hz (mΩ)	Ripple Current 85℃ 120Hz (Arms)	Catalog Part Number
160 (200)	330	22×25	0.15	402	1.50	LON331M22025□VA
	390	25×25	0.15	353	1.60	LON391M25025□VA
	470	22×35	0.15	294	1.80	LON471M22035□VA
	560	22×40	0.15	245	2.10	LON561M22040□VA
	560	25×30	0.15	245	2.20	LON561M25030□VA
	560	30×25	0.15	245	2.20	LON561M30025□VA
	680	22×40	0.15	202	2.60	LON681M22040□VA
	680	25×35	0.15	202	2.60	LON681M25035□VA
	820	22×50	0.15	168	2.80	LON821M22050□VA
	820	25×40	0.15	168	2.80	LON821M25040□VA
	820	30×30	0.15	168	2.90	LON821M30030□VA
	820	35×25	0.15	168	2.90	LON821M35025□VA
	1000	25×45	0.15	136	3.30	LON102M25045□VA
	1000	30×35	0.15	136	3.30	LON102M30035□VA
	1000	35×30	0.15	136	3.40	LON102M35030□VA
	1200	25×50	0.15	112	3.70	LON122M25050□VA
	1200	30×40	0.15	112	3.70	LON122M30040□VA
	1200	35×35	0.15	112	3.80	LON122M35035□VA
	1500	30×45	0.15	92	4.30	LON152M30045□VA
	1500	35×40	0.15	92	4.40	LON152M35040□VA
	1800	35×45	0.15	75	4.81	LON182M35045□VA
	2200	35×50	0.15	62	5.33	LON222M35050□VA
	2700	35×80	0.15	49	5.70	LON272M35080□VA
	3300	40×80	0.15	44	6.80	LON332M40080□VA
	3900	35×80	0.15	37	7.20	LON392M35080□VA
	4700	40×80	0.15	34	7.90	LON472M40080□VA
	5600	40×90	0.15	31	7.50	LON562M40090□VA
200 (250)	220	22×25	0.15	603	1.20	LOL221M22025□VA
	330	22×30	0.15	402	1.55	LOL331M22030□VA
	330	25×25	0.15	402	1.60	LOL331M25025□VA
	390	22×35	0.15	353	1.80	LOL391M22035□VA
	390	25×30	0.15	353	1.80	LOL391M25030□VA
	470	22×40	0.15	294	2.00	LOL471M22040□VA
	470	30×25	0.15	294	2.10	LOL471M30025□VA
	560	22×45	0.15	245	2.20	LOL561M22045□VA
	560	25×35	0.15	245	2.20	LOL561M25035□VA
	560	30×30	0.15	245	2.30	LOL561M30030□VA
	560	35×25	0.15	245	2.30	LOL561M35025□VA
	680	25×40	0.15	202	2.60	LOL681M25040□VA
	680	30×30	0.15	202	2.50	LOL681M30030□VA
	820	25×50	0.15	168	2.70	LOL821M25050□VA
	820	30×40	0.15	168	2.70	LOL821M30040□VA
	820	35×35	0.15	168	2.80	LOL821M35035□VA
	1000	30×40	0.15	136	3.60	LOL102M30040□VA
	1000	35×35	0.15	136	3.55	LOL102M35035□VA
	1200	30×50	0.15	112	3.80	LOL122M30050□VA
	1200	35×40	0.15	112	3.70	LOL122M35040□VA
	1500	35×50	0.15	92	4.25	LOL152M35050□VA
	1800	35×60	0.15	75	4.60	LOL182M35060□VA
	2200	35×60	0.15	62	5.00	LOL222M35060□VA
	2700	35×70	0.15	49	5.90	LOL272M35070□VA
	3300	40×60	0.15	44	6.60	LOL332M40060□VA
	3900	40×80	0.15	37	7.10	LOL392M40080□VA
	4700	40×90	0.15	34	7.50	LOL472M40090□VA
250 (300)	150	22×25	0.15	885	0.92	LOJ151M22025□VA
	180	22×30	0.15	737	1.00	LOJ181M22030□VA
	180	25×25	0.15	737	1.00	LOJ181M25025□VA
	220	22×35	0.15	603	1.25	LOJ221M22035□VA
	220	25×30	0.15	603	1.25	LOJ221M25030□VA

WV _{DC} (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20℃ 120Hz	ESR _{typ} 20℃ 120Hz (mΩ)	Ripple Current 85℃ 120Hz (Arms)	Catalog Part Number
250 (300)	270	22×35	0.15	491	1.30	LOJ271M22035□VA
	270	25×30	0.15	491	1.30	LOJ271M25030□VA
	270	30×25	0.15	491	1.30	LOJ271M30025□VA
	330	22×40	0.15	402	1.64	LOJ331M22040□VA
	330	25×30	0.15	402	1.64	LOJ331M25030□VA
	330	30×25	0.15	402	1.64	LOJ331M30025□VA
	390	22×45	0.15	353	1.90	LOJ391M22045□VA
	390	25×35	0.15	353	1.90	LOJ391M25035□VA
	470	22×50	0.15	294	2.20	LOJ471M22050□VA
	470	25×45	0.15	294	2.20	LOJ471M25045□VA
	470	30×35	0.15	294	2.20	LOJ471M30035□VA
	470	35×25	0.15	294	2.20	LOJ471M35025□VA
	560	25×45	0.15	245	2.40	LOJ561M25045□VA
	560	30×35	0.15	245	2.40	LOJ561M30035□VA
	680	30×40	0.15	202	2.80	LOJ681M30040□VA
	680	35×30	0.15	202	2.80	LOJ681M35030□VA
	820	30×45	0.15	168	3.20	LOJ821M30045□VA
	820	35×35	0.15	168	3.20	LOJ821M35035□VA
	1000	35×40	0.15	136	3.70	LOJ102M35040□VA
	1200	35×45	0.15	112	4.10	LOJ122M35045□VA
	1500	35×50	0.15	95	4.60	LOJ152M35050□VA
	1800	35×60	0.15	75	4.80	LOJ182M35060□VA
	2200	35×60	0.15	62	5.40	LOJ222M35060□VA
	2700	35×70	0.15	49	6.70	LOJ272M35070□VA
	3300	40×60	0.15	44	7.90	LOJ332M40060□VA
	3900	40×80	0.15	37	8.70	LOJ392M40080□VA
	4700	40×100	0.15	34	10.50	LOJ472M40100□VA
400 (450)	68	22×25	0.15	1522	0.62	LOG680M22025□VA
	100	22×30	0.15	1035	0.81	LOG101M22030□VA
	100	25×25	0.15	1035	0.83	LOG101M25025□VA
	120	22×35	0.15	863	0.93	LOG121M22035□VA
	150	22×40	0.15	690	1.20	LOG151M22040□VA
	150	25×30	0.15	690	1.20	LOG151M25030□VA
	150	30×25	0.15	690	1.20	LOG151M30025□VA
	180	22×45	0.15	575	1.30	LOG181M22045□VA
	180	25×35	0.15	575	1.30	LOG181M25035□VA
	180	30×30	0.15	575	1.30	LOG181M30030□VA
	180	35×25	0.15	575	1.30	LOG181M35025□VA
	220	22×50	0.15	471	1.50	LOG221M22050□VA
	220	25×40	0.15	471	1.50	LOG221M25040□VA
	220	30×35	0.15	471	1.50	LOG221M30035□VA
	270	25×45	0.15	383	1.70	LOG271M25045□VA
	270	30×40	0.15	383	1.70	LOG271M30040□VA
	270	35×30	0.15	383	1.70	LOG271M35030□VA
	330	30×45	0.15	314	2.10	LOG331M30045□VA
	330	35×35	0.15	314	2.10	LOG331M35035□VA
	390	30×50	0.15	265	2.30	LOG391M30050□VA
	390	35×40	0.15	265	2.30	LOG391M35040□VA
	470	35×50	0.15	220	2.70	LOG471M35050□VA
	560	35×50	0.15	185	3.00	LOG561M35050□VA
	680	35×65	0.15	153	3.40	LOG681M35065□VA
	820	40×60	0.15	126	3.90	LOG821M40060□VA
	1000	40×70	0.15	106	4.70	LOG102M40070□VA
	1200	40×75	0.15	89	5.20	LOG122M40075□VA
	1500	35×50	0.15	71	6.60	LOG152M35050□VA
	1800	45×80	0.15	59	7.60	LOG182M45080□VA
	2200	50×90	0.15	48	8.70	LOG222M50090□VA
	2700	50×105	0.15	39	10.00	LOG272M50105□VA
	3300	50×110	0.15	34	11.20	LOG332M50110□VA

*产品编码中□内为产品端子引出型式代码
* □Enter the appropriate terminal code

LO 系列 SERIES

◆ 产品一览表 Standard Ratings

WV _{DC} (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20℃ 120Hz	ESR _{typ} 20℃ 120Hz (mΩ)	Ripple Current 85℃ 120Hz (Arms)	Catalog Part Number
450 (500)	47	22×25	0.20	2767	0.52	LOE470M22025□VA
	68	22×30	0.20	1912	0.66	LOE680M22030□VA
	68	25×25	0.20	1912	0.66	LOE680M25025□VA
	100	22×35	0.20	1300	0.90	LOE101M22035□VA
	100	25×30	0.20	1300	0.90	LOE101M25030□VA
	100	30×25	0.20	1300	0.90	LOE101M30025□VA
	120	22×40	0.20	1083	1.10	LOE121M22040□VA
	120	25×35	0.20	1083	1.10	LOE121M25035□VA
	150	22×50	0.20	867	1.30	LOE151M22050□VA
	150	25×40	0.20	867	1.30	LOE151M25040□VA
	150	30×30	0.20	867	1.30	LOE151M30030□VA
	180	25×45	0.20	723	1.40	LOE181M25045□VA
	180	30×35	0.20	723	1.40	LOE181M30035□VA
	180	35×25	0.20	723	1.40	LOE181M35025□VA
	220	25×50	0.20	591	1.60	LOE221M25050□VA
	220	30×40	0.20	591	1.60	LOE221M30040□VA
	220	35×30	0.20	591	1.60	LOE221M35030□VA
	270	30×45	0.20	482	1.90	LOE271M30045□VA
	270	35×35	0.20	482	1.90	LOE271M35035□VA
	330	35×40	0.20	394	2.20	LOE331M35040□VA
	390	35×45	0.20	333	2.40	LOE391M35045□VA
	470	35×50	0.20	277	2.80	LOE471M35050□VA
	560	35×60	0.20	232	3.20	LOE561M35060□VA
	680	35×70	0.20	191	3.80	LOE681M35070□VA
	820	35×80	0.20	159	4.40	LOE821M35080□VA
	1000	40×80	0.20	130	5.30	LOE102M40080□VA
	1200	40×90	0.20	108	6.10	LOE122M40090□VA
	1500	45×80	0.20	87	6.90	LOE152M45080□VA
	1800	50×85	0.20	72	8.30	LOE182M50085□VA
	2200	45×100	0.20	59	9.40	LOE222M45100□VA
	2700	50×110	0.20	48	10.90	LOE272M50110□VA
500 (550)	47	22×25	0.20	2767	0.51	LOC470M22025□VA
	68	22×30	0.20	1912	0.65	LOC680M22030□VA
	68	25×25	0.20	1912	0.65	LOC680M25025□VA
	100	25×35	0.20	1300	0.86	LOC101M25035□VA
	100	30×25	0.20	1300	0.86	LOC101M30025□VA
	120	25×40	0.20	1083	0.95	LOC121M25040□VA
	120	30×30	0.20	1083	0.95	LOC121M30030□VA
	120	35×25	0.20	1083	0.95	LOC121M35025□VA
	150	25×45	0.20	867	1.10	LOC151M25045□VA
	150	30×35	0.20	867	1.10	LOC151M30035□VA
	180	30×40	0.20	723	1.40	LOC181M30040□VA
	180	35×30	0.20	723	1.30	LOC181M35030□VA
	220	30×45	0.20	591	1.60	LOC221M30045□VA
	220	35×35	0.20	591	1.50	LOC221M35035□VA
	270	30×50	0.20	482	1.80	LOC271M30050□VA
	270	35×40	0.20	482	1.70	LOC271M35040□VA

WV _{DC} (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20℃ 120Hz	ESR _{typ} 20℃ 120Hz (mΩ)	Ripple Current 85℃ 120Hz (Arms)	Catalog Part Number
500 (550)	330	30×50	0.20	394	2.00	LOC331M30050□VA
	330	35×45	0.20	394	1.90	LOC331M35045□VA
	390	35×50	0.20	333	2.30	LOC391M35050□VA
	470	35×60	0.20	277	2.50	LOC471M35060□VA
	560	35×65	0.20	232	2.70	LOC561M35065□VA
	560	40×60	0.20	232	2.90	LOC561M40060□VA
	680	35×80	0.20	191	3.50	LOC681M35080□VA
	680	40×70	0.20	191	3.50	LOC681M40070□VA
	820	35×90	0.20	159	4.00	LOC821M35090□VA
	820	40×75	0.20	159	3.90	LOC821M40075□VA
	1000	40×90	0.20	130	4.70	LOC102M40090□VA
	1200	40×100	0.20	108	5.40	LOC122M40100□VA
	1500	50×90	0.20	87	6.50	LOC152M50090□VA
	1800	50×105	0.20	72	7.60	LOC182M50105□VA
550 (600)	180	30×50	0.20	723	1.30	LOZ181M30050□VA
	220	30×60	0.20	591	1.50	LOZ221M30060□VA
	270	35×45	0.20	482	1.60	LOZ271M35045□VA
	270	35×60	0.20	482	1.70	LOZ271M35060□VA
	330	30×60	0.20	394	1.80	LOZ331M30060□VA
	330	35×55	0.20	394	1.90	LOZ331M35055□VA
	390	35×65	0.20	333	2.30	LOZ391M35065□VA
	390	35×70	0.20	333	2.40	LOZ391M35070□VA
	470	35×80	0.20	277	2.80	LOZ471M35080□VA
	560	35×90	0.20	232	3.10	LOZ561M35090□VA
	680	40×90	0.20	191	3.70	LOZ681M40090□VA
	820	45×85	0.20	159	4.30	LOZ821M45085□VA
	1000	45×100	0.20	130	5.10	LOZ102M45100□VA
	1200	50×90	0.20	108	5.60	LOZ122M50090□VA
	1500	50×105	0.20	87	6.60	LOZ152M50105□VA

*产品编码中□内为产品端子引出型式代码

*□Enter the appropriate terminal code

*记载之外的体积，请另行咨询。

*Please ask for advice for other sizes.

*铝电解电容器由于承受纹波电流而发热，随着温升而发生性能劣化。请在使用中降低产品承受的纹波电流。

*Aluminum electrolytic capacitor will emit heat when ripple current is applied, the performance will deteriorate when temp. rises. Please reduce the ripple current when using capacitor.