

## 系列：LHN

### 产品特点

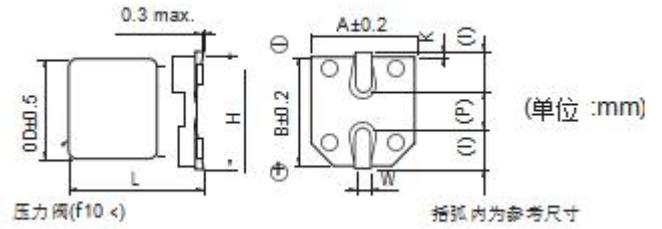
- 高温无铅回流焊产品
- 保证时间：85℃ 2000 小时
- Vertical chip type miniaturized
- Bi-polarized capacitors for 5.5mm high capacitors
- Designed for surface mounting on high density PC board
- 符合 RoHS 标准

项目 Items	特性 Characteristics							
工作温度范围 Operating Temperature Range	-40℃ ~ +85℃							
额定电压范围 Rated Voltage Range	6.3V ~ 50V							
标称电容量范围 Nominal Capacitance Range	0.1 ~ 100μF							
标称电容量允许偏差 Nominal Capacitance Tolerance	±20% (20℃, 120Hz)							
漏电流 Leakage Current	$I \leq 0.05C_R U_R$ or $10(\mu A)$ , 取较大者 (2 分钟) $C_R$ : 标称电容量 (μF) $U_R$ : 额定电压 (V) $I \leq 0.05C_R U_R$ or $10(\mu A)$ Whichever is greater (at 20℃, after 2 minutes) $C_R$ : Nominal Capacitance (μF) $U_R$ : Rated voltages (V)							
损耗角正切 (tgδ) Dissipation Factor (Max) 20℃, 120Hz	$U_R$ (V)		6.3	10	16	25	35	50
	tgδ	4Φ	0.35	0.30	0.25	0.25	0.25	0.25
		5~6.3Φ	0.30	0.25	0.20	0.15	0.15	0.15
耐久性 Load Life	+85℃施加额定电压 2000 小时后, 每 250 小时换向一次, 电容器应满足以下要求: After 1000 hours' application of rated voltage at 85℃, with the polarity inverted every 250 hours, the capacitor shall meet the following requirement:							
	电容量变化率 Capacitance Change		±20%初始值以内 Within ±20% of the initial value					
	损耗角正切 Dissipation Factor		≤ 200%初始规定值 Not more than 200% of the initial specified value					
	漏电流 Leakage Current		≤ 初始规定值 Not more than the initial specified value					
高温贮存 Shelf Life	+85℃贮存 1000 小时后, 加额定工作电压 30 分钟, 电容器应满足以上耐久性要求 After storage for 1000 hours at +85℃, $U_R$ to be applied for 30 minutes, the capacitors shall meet the requirement of load life above							
耐焊接热 Resistance to Soldering Heat	在 250℃的条件下, 电容器在热板上保持 30 秒, 然后从热板上取出电容器, 让其在室温下恢复, 电容器应满足以下要求: The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement.							
	电容量变化率 Capacitance Change		±10%初始值以内 Within ±10% of the initial value					
	损耗角正切 (tgδ) Dissipation Factor		≤ 初始规定值 Not more than the initial specified value					
	漏电流 Leakage Current		≤ 初始规定值 Not more than the initial specified value					
AEC-Q200	符合 AEC-Q200							

## 标示

## 外观尺寸

例: 10V.DC 220uF LHN系列



φ D	L	A, B	H.	I	W	P	K
4	5.4±0.3	4.3	5.5	1.8	0.5~0.8	1.0	0.35 + 0.15/0.20
5	5.4±0.3	5.3	6.5	2.1	0.5~0.8	1.3	
6.3	5.4±0.3	6.6	7.8	2.4	0.5~0.8	2.2	
6.3	7.7±0.3	6.6	7.8	2.4	0.5~0.8	2.2	
8	10.5±0.5	8.3	10	3.4	0.8~1.1	3.1	0.70±0.20
8	12.5±0.5	8.3	10	3.4	0.8~1.1	3.1	0.70±0.20

特性一览表 1

额定电压 (V.DC)	静电容量 (±20%) (uF)	产品尺寸(mm)		电气特性		料号	最小包装 数量 (PCS)
		φ D	L	额定纹波电流 (120Hz) (+105℃)	tan δ (120HZ) (+20℃)		
6.3	22	5	5.4	28	0.26	LHNOJ220MC05400LP0	1000
	33	6.3	5.4	45	0.26	LHNOJ330ME05400LP0	1000
	47	6.3	5.4	45	0.26	LHNOJ470ME05400LP0	1000
	100	6.3	7.7	82	0.26	LHNOJ101ME07700LP0	1000
10	10	4	5.4	18	0.22	LHN1A100MB05400LP0	2000
	22	6.3	5.4	40	0.22	LHN1A220ME05400LP0	1000
	33	6.3	5.4	50	0.22	LHN1A330ME05400LP0	1000
	47	6.3	7.7	61	0.22	LHN1A470ME07700LP0	1000
16	4.7	4	5.4	14	0.20	LHN1C4R7MB05400LP0	2000
	10	5	5.4	26	0.20	LHN1C100MC05400LP0	1000
	22	6.3	5.4	45	0.20	LHN1C220ME05400LP0	1000
	33	6.3	5.4	55	0.20	LHN1C330ME05400LP0	1000
	47	6.3	7.7	75	0.20	LHN1C470ME07700LP0	1000
	100	6.3	7.7	80	0.20	LHN1C101ME07700LP0	1000
	220	8	10.5	100	0.20	LHN1C221MF10500LP0	500
25	3.3	4	5.4	13	0.25	LHN1E3R3MB05400LP0	2000
	4.7	5	5.4	20	0.15	LHN1E4R7MC05400LP0	1000
	10	6.3	5.4	35	0.15	LHN1E100ME05400LP0	1000
	22	6.3	7.7	50	0.15	LHN1E220ME07700LP0	1000
	33	6.3	7.7	61	0.15	LHN1E330ME07700LP0	1000
	47	6.3	7.7	61	0.15	LHN1E470ME07700LP0	1000
	68	6.3	7.7	65	0.15	LHN1E680ME07700LP0	1000

特性一览表 2

额定电压 (V.DC)	静电容量 (±20%) (uF)	产品尺寸(mm)		电气特性		料号	最小包装 数量 (PCS)
		φ D	L	额定纹波电流 (120HZ)	tan δ (120HZ) (+20℃)		
35	2.2	4	5.4	10	0.25	LHN1V2R2MB05400LP0	2000
	3.3	5	5.4	17	0.15	LHN1V3R3MC05400LP0	1000
	4.7	5	5.4	21	0.15	LHN1V4R7MC05400LP0	1000
	10	6.3	5.4	35	0.15	LHN1V100ME05400LP0	1000
	22	6.3	7.7	54	0.15	LHN1V220ME07700LP0	1000
	33	6.3	7.7	57	0.15	LHN1V330ME07700LP0	1000
	47	6.3	7.7	60	0.15	LHN1V470ME07700LP0	1000
50	0.1	4	5.4	2.3	0.25	LHN1HR10MB05400LP0	2000
	0.22	4	5.4	3.3	0.25	LHN1HR22MB05400LP0	2000
	0.33	4	5.4	4.1	0.25	LHN1HR33MB05400LP0	2000
	0.47	4	5.4	4.9	0.25	LHN1HR47MB05400LP0	2000
	1	4	5.4	8.4	0.25	LHN1H1R0MB05400LP0	2000
	2.2	5	5.4	13	0.15	LHN1H2R2MC05400LP0	1000
	3.3	5	5.4	17	0.15	LHN1H3R3MC05400LP0	1000
	4.7	6.3	5.4	20	0.15	LHN1H4R7ME05400LP0	1000
	10	6.3	7.7	36	0.15	LHN1H100ME07700LP0	1000
	22	8	10.5	50	0.15	LHN1E220MF10500LP0	500

■ Frequency coefficient of ripple current

Frequency 频率	50Hz	120Hz	1KHZ	≧ 10KHZ
Coefficient 系数	0.70	1.00	1.30	1.40