

# SEH

大纹波系列: 105℃ 2,000小时时间品

High ripple current: 105℃ 2,000 hours

基板自立型, 大纹波品

规格表 SPECIFICATIONS

项目 Item	性能 Performance				
工作温度范围 Category Temperature Range	-25 ~ 105℃				
额定电压范围 Rated Voltage Range	200 ~ 450V.DC				
静电容量允许偏差 Electrostatic Capacitance Tolerance	± 20% ( 20℃, 120Hz)				
漏电流 Leakage Current	I ≤ 3√CV ( 5分钟值 ) ( 5minutes )				
	I=漏电流 V=额定电压	Leakage Current (μA)	C=静电容量	Electrostatic Capacitance(μF)	
损耗角正切值 Dissipation Factor	20℃ 120Hz				
	额定电压 Rated Voltage	200~400	450		
	tan δ (Max)	0.15	0.20		
温度特性 / 阻抗比 Temperature Stability / Impedance Ratio	120Hz				
	额定电压 Rated Voltage	160~450	450		
	Z-25℃/Z+20℃	4	8		
耐久性 Endurance	在105℃的环境中, 在不超过额定电压的范围内重叠印加规定的额定纹波电流2,000小时后应符合下列要求。 After 2,000 hour life test at 105℃ with rated voltage and ripple current,the capacitors shall meet the following requirements .				
	静电容量变化率 Electrostatic Capacitance Change	初始值的 ± 20% ± 20% of the initial value			
	损耗角正切值 Dissipation Factor	初始值的200% 200% of the initial value			
	漏电流 Leakage Current	初始规格值 The initial specification value			
高温无负荷特性 Shelf Life	经过1,000个小时的保质寿命试验105℃,然后在20℃保存。经过预处理后 ( JIS C 5102规范4.4), 电容器应符合下列要求。 After 1,000 hour shelf life test at 105℃,then stored at 20℃.And after pre-treatment (JIS C 5102 4.4),the capacitors shall meet the following requirements.				
	静电容量变化率 Electrostatic Capacitance Change	初始值的 ± 20% ± 20% of the initial value			
	修正系数 Correction Coefficient	初始值 ± 10% Initial value ± 10%	初始值 ± 15% Initial value ± 15%	初始值 ± 20% Initial value ± 20%	初始值 ± 30% Initial value ± 30%
		0.7	0.85	1	2.47
	损耗角正切值 Dissipation Factor	初始值的200% 200% of the initial value			
漏电流 Leakage Current	初始规格值 The Initial specification value				

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## ■ 纹波电流修正系数 / CORRECTION COEFFICIENT FOR RIPPLE CURRENT

### 1. 频率系数 Frequency Coefficient

频率 Frequency	60 (50)	120	500	1K	≥10K
200~250 V.DC	0.80	1.00	1.20	1.25	1.30
400~450 V.DC	0.80	1.00	1.20	1.25	1.40

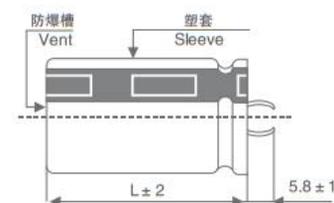
### 2. 周围温度系数 Temperature Coefficient

周围温度(℃) Ambient Temperature	105	85	65
系数 Coefficient	1.0	1.7	2.1

## ■ 尺寸图 / DIMENSIONS

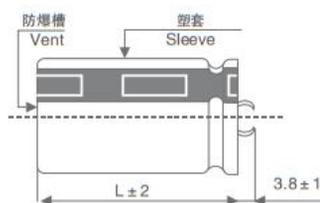
### 标准端子

Standard terminal type



### 短端子

Short terminal type



## ■ 产品代码规则 / PRODUCT CODE SYSTEM



## ■ 产品型号体系 / PRODUCT MODE

电压代码 Voltage Code	系列代码 Series Code	容量代码 Capacitance Code	允许偏差代码 Allowable Tolerance Code	尺寸代码 Size Code	设计代码 Design code	端子 Terminal
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## 标准品一览表、额定纹波电流

### TYPICAL DIMENSIONS、RATED RIPPLE CURRENT

V.DC	Cpa (uF)	外壳尺寸 Case Size φD±1×L± 3mm	纹波电流 arms/105℃ Ripple current Arms/105℃, 120Hz	产品型号 Part No	V.DC	Cpa (uF)	外壳尺寸 Case Size φD±1×L± 3mm	纹波电流 arms/105℃ Ripple current Arms/105℃, 120Hz	产品型号 Part No
200	390	22 × 30	2.17	200SEH391M2230H ZB	400	180	25 × 30	1.33	400SEH181M2530H ZB
	470	22 × 35	2.22	200SEH471M2235H ZB		180	30 × 25	1.68	400SEH181M3025H ZB
	560	22 × 40	2.30	200SEH561M2240H ZB		220	22 × 45	1.55	400SEH221M2245H ZB
	560	25 × 30	2.30	200SEH561M2530H ZB		220	25 × 35	1.55	400SEH221M2535H ZB
	680	22 × 45	2.65	200SEH681M2245H ZB		220	30 × 30	1.79	400SEH221M3030H ZB
	680	25 × 35	2.65	200SEH681M2535H ZB		220	35 × 25	1.79	400SEH221M3525H ZB
	560	30 × 25	3.08	200SEH561M3025H ZB		270	22 × 50	1.68	400SEH271M2250H ZB
	1000	25 × 50	3.48	200SEH102M2550H ZB		270	25 × 40	1.68	400SEH271M2540H ZB
	1000	30 × 35	3.98	200SEH102M3035H ZB		270	30 × 35	2.12	400SEH271M3035H ZB
	1000	35 × 30	4.20	200SEH102M3530H ZB		330	30 × 40	2.33	400SEH331M3040H ZB
	1200	30 × 40	4.20	200SEH122M3040H ZB		330	35 × 30	2.33	400SEH331M3530H ZB
	1500	35 × 40	4.62	200SEH152M3540H ZB		390	30 × 45	2.52	400SEH391M3045H ZB
	1500	30 × 50	5.22	200SEH152M3050H ZB		390	35 × 35	2.52	400SEH391M3535H ZB
	1800	35 × 45	5.22	200SEH182M3545H ZB		470	30 × 50	2.85	400SEH471M3050H ZB
	250	220	22 × 25	1.43		250SEH221M2225H ZB	470	35 × 40	2.85
270		22 × 30	1.56	250SEH271M2230H ZB	560	35 × 45	3.18	400SEH561M3545H ZB	
270		25 × 25	1.70	250SEH271M2525H ZB	450	100	22 × 30	0.95	450SEH101M2230H ZB
330		22 × 35	1.70	250SEH331M2235H ZB		100	25 × 25	0.95	450SEH101M2525H ZB
470		22 × 45	2.00	250SEH471M2245H ZB		120	22 × 35	1.15	450SEH121M2235H ZB
470		25 × 35	2.00	250SEH471M2535H ZB		120	25 × 30	1.22	450SEH121M2530H ZB
560		22 × 50	2.30	250SEH561M2250H ZB		120	30 × 25	1.22	450SEH121M3025H ZB
560		25 × 40	2.30	250SEH561M2540H ZB		150	22 × 40	1.22	450SEH151M2240H ZB
560		30 × 30	2.50	250SEH561M3030H ZB		180	22 × 45	1.38	450SEH181M2245H ZB
560		35 × 25	2.50	250SEH561M3525H ZB		180	25 × 40	1.38	450SEH181M2540H ZB
680		25 × 45	2.70	250SEH681M2545H ZB		180	30 × 30	1.60	450SEH181M3030H ZB
680		30 × 35	3.00	250SEH681M3035H ZB		180	35 × 25	1.60	450SEH181M3525H ZB
680		35 × 30	3.00	250SEH681M3530H ZB		220	25 × 45	1.55	450SEH221M2545H ZB
820		30 × 40	3.30	250SEH821M3040H ZB		270	25 × 50	1.74	450SEH271M2550H ZB
1000		30 × 45	3.45	250SEH102M3045H ZB		270	30 × 40	1.90	450SEH271M3040H ZB
1200	35 × 45	3.75	250SEH122M3545H ZB	330		30 × 45	2.20	450SEH331M3045H ZB	
1500	35 × 50	4.05	250SEH152M3550H ZB	330		35 × 40	2.40	450SEH331M3540H ZB	
400	100	22 × 25	0.95	400SEH101M2225H ZB	390	30 × 50	2.40	450SEH391M3050H ZB	
	120	22 × 30	1.22	400SEH121M2230H ZB	390	35 × 45	2.61	450SEH391M3535H ZB	
	150	22 × 35	1.33	400SEH151M2235H ZB	470	35 × 50	2.85	450SEH471M3550H ZB	

## ●重要说明 Important note

- ◆KAOUNE并不了解每一个客户对产品的应用，也不比客户更了解他们对产品的应用。因此，客户负有最终的责任，根据其整机电路参数选择适合其的KAOUNE产品，并根据KAOUNE产品参数判定其是否适用。
- ◆我们也毫不避讳地指出，即使在正常的应用条件下无源电子元器件仍有可能在使用寿命结束前出现故障或失效。这在目前的技术水平下是无法完全排除的。因此，对于操作安全水平要求非常高的应用场合，特别是当无源电子元器件出现故障时可能会危及人身安全或健康的情况下，客户必须适当设计其应用装置或由客户采取措施（如安全保护性电路或冗余），确保在无源电子元件出现故障时，第三方不会受到伤害或损害。
- ◆我们的工程师持续不断地致力于改善产品。因此，本出版物所述产品可能会发生变化。所以，订货之前或订货的时候请咨询我们的销售工程师本出版物的产品说明和规格在多大程度上是适用的。我们保留产品尺寸及技术参数发生变更的权利。因此，我们不保证任何时候均可购买到本出版物所列全部产品。
- ◆由于客户的应用领域、安装尺寸、回路参数要求千差万别，对于同一电压同一容值的电容器亦是如此。因此，建议在订货前尽可能详尽地提供您所要求的信息，包括但不限于电压、容值、外形尺寸、安装尺寸及本出版物中《订货信息一览表》中所列明的项目。
- ◆KAOUNE do not understand each client on the application of the product, nor more than customers about their products. Customers have the ultimate responsibility to select suitable KAOUNE products for their whole circuit parameters, and under KAOUNE products parameters determine its applicability.
- ◆We also forthrightly pointed out that even in normal conditions of passive electronic components, it is still will failure or breakdown before the end of its useful life. And it cannot be completely excluded in the current level of technology. Therefore, requires a high level of operational safety applications, especially when passive electronic components failure could endanger the personal safety or health of the case, The customer must be properly designed appliance or measures taken by the customer (such as security protective circuitry or redundancy), to ensure when the failure in the passive electronic components, the third party will not harm or damage.
- ◆KAOUNE engineers constantly committed to improve the product. Therefore, the publication of the product may change. Therefore, please consult our sales engineer before order. We reserve the right to change the product dimensions and technical parameters. Therefore, we cannot guarantee that at any time can be purchased to the publications listed all products.
- ◆Due to the customer's applications, installation size, circuit parameters requirements vary widely, as well as the same capacitor values for the same voltage. Therefore, we suggest that provide requested information as much details as possible before order, including but not limited to voltage, capacitance, dimensions, installation size and the other parameters items of order information.

## ● 敬告和警告 Warning



- ◆ 电容器经过耐压测试后或退出运行后，其上存储的能量足以对人身造成伤害。因此，在接触电容器出线端子之前必须首先经过电阻放电、再短接引出端子，确保残存电荷泄放掉。
- ◆ 金属化薄膜介质电容器不应过多直接短路放电。短路放电试验属于型式试验项目，做过型式试验的产品不宜再正常使用。
- ◆ 进行耐压测试会对其绝缘造成损害，且该损害具备累积效应。
- ◆ 电容器与电路的连接应可靠，避免接触不良引起高频振荡造成电容器过压或过热。
- ◆ 避免电容器暴露于强酸、强碱及其他腐蚀性介质的环境中运行。
- ◆ 避免电容器在充满易燃易爆的气体或尘埃的环境中运行。
- ◆ 避免外部能量传导到电容器内部，如火、热、雷电。
- ◆ 避免电容器过温运行。
- ◆ 避免电容器异常过载。
- ◆ 避免核辐射。
  
- ◆ After resistant voltage test or out of operation, the capacitor stored energy is sufficient to cause the damage to the human. Therefore, in contact with the capacitor outlet terminals must discharge through the resistor first, and then short-circuited lead terminal, ensure that the residual charge of release.
- ◆ Metalized film dielectric capacitors should not over discharge to the short circuit. Short circuit discharge test are type of pilot projects, the test products are not appropriate to normal use.
- ◆ Excessive resistant voltage capacitor test will damage the insulation, and the damage has a cumulative effect.
- ◆ The capacitor circuit connection should be reliable, to avoid capacitor overvoltage or overheating by high-frequency oscillation because of poor contact.
- ◆ Avoid capacitor is exposed to strong acid, alkali and other corrosive medium environment operate.
- ◆ Avoid the capacitor filled with flammable and explosive gas or dust environment operate.
- ◆ Avoid external energy transmitted to the capacitor internal, such as fire, heat, electricity.
- ◆ Avoid capacitor operate over-temperature.
- ◆ Avoid capacitor abnormal overload.
- ◆ Avoid nuclear radiation.