

# HS 系列 SERIES



- 全焊结构，确保可靠的电气接触性  
All-welded construction ensures reliable electrical contact
- 优异的导热能力与高耐纹波电流能力  
Good thermal characteristics and high ripple current capability.
- 保证 105℃、5000 小时寿命。(叠加纹波电流)  
Endurance with ripple current: 5000 hours at 105℃
- 应用：变频器、机车牵引装置和专业电源  
Applications: Frequency converters, Traction and Professional power supplies



## ◆规格表 SPECIFICATIONS

项目 Items	特性 Characteristics										
工作温度范围 Operating Temperature Range	-40~+105℃										
额定工作电压范围 Rated Working Voltage Range	350~500V										
静电容量范围 Capacitance Range	1000~15000 µF										
静电容量允许偏差 Capacitance Tolerance	±20% (20℃, 120Hz)										
损耗角正切值 Dissipation Factor (MAX) 20℃, 120Hz	<table border="1"> <tr> <td>U<sub>R</sub>(V)</td> <td>350</td> <td>400</td> <td>450</td> <td>500</td> </tr> <tr> <td>tanδ</td> <td colspan="4">0.15</td> </tr> </table>	U <sub>R</sub> (V)	350	400	450	500	tanδ	0.15			
U <sub>R</sub> (V)	350	400	450	500							
tanδ	0.15										
漏电流 Leakage Current (MAX)	$I = 0.01C_R U_R$ 或 5mA 取小者 (20℃, 施加额定电压 5 分钟后) $I = 0.01C_R U_R$ or 5mA whichever is minimum. (at 20℃, After 5 minutes application of rated voltage) I=漏电流 (µA)      U <sub>R</sub> =额定电压 (V)      C <sub>R</sub> =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	9000h	>200000h	5000h	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 300% ≤300% of specified value	≤规定值的 130% ≤ 130% of specified	≤规定值的 150% ≤ 150% of specified
静电容量变化率 Capacitance Change	初始值±30%以内 Within±30% of initial value	初始值±30%以内 Within±30% of initial value	初始值±10%以内 Within±10% of initial	初始值±15%以内 Within±15% of initial
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 <sub>R</sub> I <sub>R</sub> 105℃ ≤1% Failure rate	U <sub>R</sub> 1.2×I <sub>R</sub> 40℃ ≤1% Failure rate	U <sub>R</sub> I <sub>R</sub> 105℃ 0%	U <sub>R</sub> I <sub>R</sub> 105℃ 0%

## ◆尺寸图 Dimensions

- 常用端子型式代码: Terminal Code

L-Type: Small terminal M5 thread

S-Type: Large terminal M6 thread

Ring Clip: T (Φ35 Standard)      Ring Clip: S (Φ51-Φ89 Standard)

ΦD	A	B	a	b
51	73.0	63.5	4.5	7
64	85.1	76.2	4.5	7
76	98.4	88.9	4.5	7
89	111.1	101.6	4.5	7

产品详细尺寸和公差请参照 P130  
For detailed dimension & tolerance, please refer to P130

- 记载以外的端子形状，请另行咨询。Please consult to us for the terminal type not displayed in content.

## ◆产品编码体系 PART NUMBER SYSTEM

●例如: Example HS 400V10000µF Φ89×195 ±20%

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
H	S	G	1	0	3	M	8	9	1	9	5	S	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: 195→195) The height of the code (mm)  
 直径代码 (例: 76→76, 89→89) Diameter code (mm)  
 容差代码 (例: ±20%→M) Capacitance Tolerance code  
 容量代码 (例: 5600→562, 10000→103) Capacitance Code (µF)  
 电压代码 (例: 400V→G, 500V→C) Rated Voltage Code (V)  
 产品系列代码 (例: HS→HS) Series Code

## ◆纹波电流修正系数 Rated Ripple Current Multiplies

●频率修正系数 Frequency coefficient					
频率 Frequency (Hz)	50(60)	100(120)	300	1k	≥10k
系数 Coefficient	0.80	1.00	1.10	1.30	1.40
●温度修正系数 Temperature coefficient					
温度 Temperature (℃)	+40	+60	+85	+105	
系数 Coefficient	2.44	2.16	2.00	1.00	

◆ 产品一览表 Standard Ratings

WV <sub>DC</sub> (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20°C/120Hz	Ripple Current 105°C/120Hz z (Arms)	Catalog Part Number
350 (400)	1000	51×80	0.15	3.9	HSH102M51080□VA
	1200	51×80	0.15	4.2	HSH122M51080□VA
	1500	51×95	0.15	5.2	HSH152M51095□VA
	1800	51×115	0.15	5.7	HSH182M51115□VA
	2200	51×130	0.15	7.1	HSH222M51130□VA
	2700	64×95	0.15	8.1	HSH272M64095□VA
	3300	64×115	0.15	10.4	HSH332M64115□VA
	3900	64×130	0.15	11.0	HSH392M64130□VA
	4700	76×115	0.15	12.1	HSH472M76115□VA
	5600	76×130	0.15	13.8	HSH562M76130□VA
	6800	76×155	0.15	16.3	HSH682M76155□VA
	8200	89×157	0.15	19.1	HSH822M89157□VA
	10000	89×157	0.15	21.0	HSH103M89157□VA
	12000	89×195	0.15	25.0	HSH123M89195□VA
	15000	89×235	0.15	30.2	HSH153M89235□VA
400 (450)	1000	51×80	0.15	4.0	HSG102M51080□VA
	1200	51×95	0.15	4.7	HSG122M51095□VA
	1500	51×115	0.15	5.6	HSG152M51115□VA
	1800	51×130	0.15	6.4	HSH182M51130□VA
	2200	64×95	0.15	6.9	HSG222M64095□VA
	2700	64×115	0.15	8.4	HSG272M64115□VA
	3300	64×130	0.15	10.1	HSG332M64130□VA
	3900	76×115	0.15	11.7	HSG392M76115□VA
	4700	76×130	0.15	12.6	HSG472M76130□VA
	5600	76×155	0.15	14.9	HSG562M76155□VA
	6800	89×157	0.15	17.3	HSG682M89157□VA
	8200	89×157	0.15	19.1	HSG822M89157□VA
	10000	89×195	0.15	22.0	HSG103M89195□VA
	12000	89×235	0.15	27.1	HSG123M89235□VA

WV <sub>DC</sub> (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20°C/120Hz	Ripple Current 105°C/120Hz z (Arms)	Catalog Part Number	
450 (500)	1000	51×95	0.15	4.2	HSE102M51095□VA	
	1200	51×115	0.15	5.0	HSE122M51115□VA	
	1500	51×130	0.15	5.9	HSE152M51130□VA	
	1800	64×95	0.15	6.3	HSE182M64095□VA	
	2200	64×115	0.15	7.5	HSE222M64115□VA	
	2700	64×130	0.15	8.9	HSE272M64130□VA	
	3300	76×130	0.15	10.6	HSE332M76130□VA	
	3900	76×155	0.15	12.3	HSE392M76155□VA	
	4700	76×155	0.15	13.7	HSE472M76155□VA	
	5600	89×157	0.15	14.9	HSE562M89157□VA	
	6800	89×157	0.15	17.3	HSE682M89157□VA	
	8200	89×195	0.15	19.8	HSE822M89195□VA	
	10000	89×235	0.15	23.6	HSE103M89235□VA	
	500 (550)	1000	51×130	0.15	4.4	HSC102M51130□VA
		1200	64×115	0.15	5.2	HSC122M64115□VA
1500		64×130	0.15	6.2	HSC152M64130□VA	
1800		76×115	0.15	7.0	HSC182M76115□VA	
2200		76×130	0.15	8.0	HSC222M76130□VA	
2700		76×155	0.15	9.6	HSC272M76155□VA	
3300		89×130	0.15	10.7	HSC332M89130□VA	
3900		89×157	0.15	12.2	HSC392M89157□VA	
4700		89×170	0.15	13.9	HSC472M89170□VA	
5600		89×195	0.15	15.5	HSC562M89195□VA	
6800		89×235	0.15	18.1	HSC682M89235□VA	
8200		89×250	0.15	20.1	HSC822M89250□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.