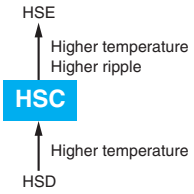
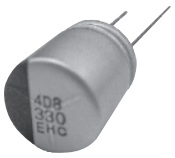
HSC Series





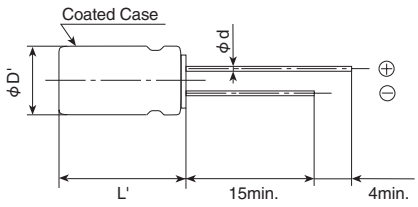
- High reliability and high voltage are realized by hybrid electrolyte
- Endurance with ripple current : 4,000 hours at 125℃
- Rated voltage range : 25 to 80Vdc, Capacitance range : 56 to 330µF
- For high temperature and high reliability applications.
  (Automotive equipment, Base station equipment, etc.)
- RoHS2 Compliant
- Halogen Free
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

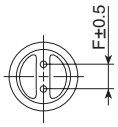
◆SPECIFICATIONS

Items	Characteristics		
Category Temperature Range	-55 to +125℃		
Rated Voltage Range	25 to 80Vdc		
Capacitance Tolerance	±20% (M)		(at 20℃, 120Hz)
Leakage Current	I=0.05CV Where, I : Max. leakage current (µA), C: Nominal capacitance(µF), V : Rated voltage(V)		(at 20℃ after 2 minutes)
Dissipation Factor (tan δ)	0.16 max.		(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Z(-25℃)/Z(+20℃)≦1.5 Z(-55℃)/Z(+20℃)≦2.0		(at 100kHz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 4,000 hours at 125℃.		
	Capacitance change	≦±30% of the initial value	
	D.F. (tan δ)	≦ 200% of the initial specified value	
	ESR	≦ 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℃ after exposing them for 1,000 hours at 125℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.		
	Capacitance change	≦±30% of the initial value	
	D.F. (tan δ)	≦ 200% of the initial specified value	
	ESR	≦ 200% of the initial specified value	
	Leakage current	≦ The initial specified value	
Bias Humidity Test	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to the DC rated voltage at 85℃, 85% RH for 2,000 hours.		
	Appearance	No significant damage	
	Capacitance change	≦ ±30% of the initial value	
	D.F. (tan δ)	≦ 200% of the initial specified value	
	ESR	≦ 200% of the initial specified value	
	Leakage current	≦ The initial specified value	

◆DIMENSIONS [mm]

●Terminal Code : E





Size Code	JC5
ϕD	10
ϕd	0.6
F	5.0
ϕD'	ϕD+0.5max.
L'	L+1.5max.

◆MARKING

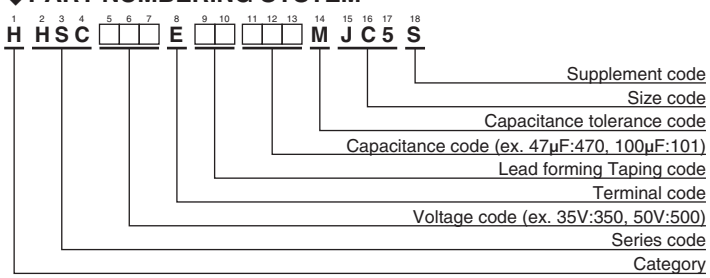
EX) 80V56µF



●Rated voltage symbol

Rated voltage (Vdc)	Symbol
25	E
35	V
50	H
63	J
80	K

◆PART NUMBERING SYSTEM



Please refer to "Product code guide (conductive polymer hybrid type)"

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HSC Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L (mm)	ESR (mΩ max./20℃, 100kHz)	Rated ripple current (mArms/125℃, 100kHz)	Part No.
25	330	10×12.5	16	2,300	HHSC250E□□331MJC5S
35	270	10×12.5	17	2,200	HHSC350E□□271MJC5S
50	120	10×12.5	19	2,100	HHSC500E□□121MJC5S
63	100	10×12.5	20	2,000	HHSC630E□□101MJC5S
80	56	10×12.5	28	1,900	HHSC800E□□560MJC5S

□□:Enter the appropriate lead forming or taping code.

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Capacitance(μF) \ Frequency(Hz)	120	1k	5k	10k	20k	30k	100k to 500k
56 to 120	0.10	0.40	0.60	0.70	0.80	0.80	1.00
270, 330	0.13	0.45	0.65	0.75	0.85	0.85	1.00

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■ Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.

■ Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.

■ The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.

■ The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.

■ We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.

■ We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products

■ We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.
In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

Part Numbering System
Part Numbering System (Appendix)
Standardization
Available Items by Manufacturing Locations
Environmental Measures
Technical Note
Precautions and Guidelines
Recommended Soldering Conditions
Taping, Lead-preforming, Terminal and Packaging Options

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