



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# HXC Series

- High reliability and high voltage are realized by hybrid electrolyte
- Endurance with ripple current : 4,000 hours at 125°C
- Rated voltage range : 16 to 63V<sub>dc</sub>, Capacitance range : 6.8 to 470μF
- 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.

HXC

Higher temperature  
HXD

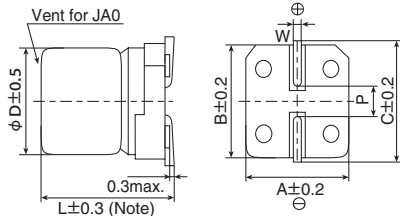


## SPECIFICATIONS

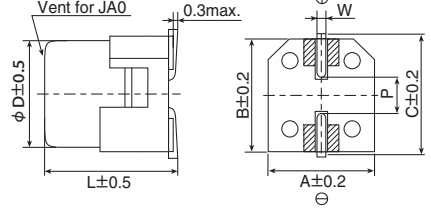
Items	Characteristics						
<b>Category Temperature Range</b>	-55 to +125°C						
<b>Rated Voltage Range</b>	16 to 63V <sub>dc</sub>						
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)						
<b>Leakage Current</b>	I=0.01CV Where, I : Max. leakage current (μA), C: Nominal capacitance(μF), V : Rated voltage(V) (at 20°C after 2 minutes)						
<b>Dissipation Factor (tan δ)</b>	Rated voltage(V <sub>dc</sub> )	16V	25V	35V	50V	63V	
	tan δ (Max.)	0.16	0.14	0.12	0.10	0.08	(at 20°C, 120Hz)
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Z(-25°C)/Z(+20°C) ≤ 1.5 Z(-55°C)/Z(+20°C) ≤ 2.0 (at 100kHz)						
<b>Endurance</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C 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°C.						
	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					
<b>Shelf Life</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 125°C 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					
<b>Bias Humidity Test</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to the DC rated voltage at 85°C, 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 : A
- Size code : E61 to JA0
- Terminal Code : G(Vibration resistant structure)
- Size code : HA0 and JA0



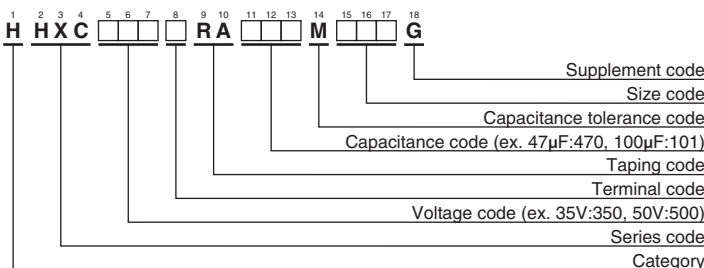
Note : L±0.5 for HA0 and JA0



▨ : Dummy terminals

Size Code	φD	L	A	B	C	W	P
E61	5	5.8	5.3	5.3	5.9	0.5 to 0.8	1.4
F61	6.3	5.8	6.6	6.6	7.2	0.5 to 0.8	1.9
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5

## PART NUMBERING SYSTEM



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

## MARKING

EX) 35V270μF



## Rated voltage symbol

Rated voltage (V <sub>dc</sub> )	Symbol
16	C
25	E
35	V
50	H
63	J

**HXC Series**
**◆STANDARD RATINGS**

WV (V <sub>dc</sub> )	Cap (μF)	Size code	ESR (mΩ max./20°C, 100kHz)	Rated ripple current (mA rms/125°C, 100kHz)	Part No.
16	47	E61	80	550	HHXC160ARA470ME61G
	82	F61	45	950	HHXC160ARA820MF61G
	150	F80	27	1,450	HHXC160ARA151MF80G
	270	HA0	22	1,700	HHXC160□RA271MHA0G
	470	JA0	18	2,100	HHXC160□RA471MJA0G
25	33	E61	80	550	HHXC250ARA330ME61G
	47	F61	50	900	HHXC250ARA470MF61G
	56	F61	50	900	HHXC250ARA560MF61G
	68	F80	30	1,400	HHXC250ARA680MF80G
	100	F80	30	1,400	HHXC250ARA101MF80G
	150	HA0	27	1,600	HHXC250□RA151MHA0G
	220	HA0	27	1,600	HHXC250□RA221MHA0G
	270	JA0	20	2,000	HHXC250□RA271MJA0G
35	330	JA0	20	2,000	HHXC250□RA331MJA0G
	22	E61	100	550	HHXC350ARA220ME61G
	27	F61	60	900	HHXC350ARA270MF61G
	47	F61	60	900	HHXC350ARA470MF61G
	47	F80	35	1,400	HHXC350ARA470MF80G
	68	F80	35	1,400	HHXC350ARA680MF80G
	100	HA0	27	1,600	HHXC350□RA101MHA0G
	150	HA0	27	1,600	HHXC350□RA151MHA0G
50	150	JA0	20	2,000	HHXC350□RA151MJA0G
	270	JA0	20	2,000	HHXC350□RA271MJA0G
	10	F61	80	750	HHXC500ARA100MF61G
	15	F80	40	1,100	HHXC500ARA150MF80G
	22	F61	80	750	HHXC500ARA220MF61G
	33	F80	40	1,100	HHXC500ARA330MF80G
	33	HA0	30	1,250	HHXC500□RA330MHA0G
	47	HA0	30	1,250	HHXC500□RA470MHA0G
63	56	JA0	25	1,600	HHXC500□RA560MJA0G
	68	HA0	30	1,250	HHXC500□RA680MHA0G
	100	JA0	25	1,600	HHXC500□RA101MJA0G
	120	JA0	25	1,600	HHXC500□RA121MJA0G
	6.8	F61	120	700	HHXC630ARA6R8MF61G
	10	F61	120	700	HHXC630ARA100MF61G
	10	F80	80	900	HHXC630ARA100MF80G
	22	F80	80	900	HHXC630ARA220MF80G
63	22	HA0	40	1,100	HHXC630□RA220MHA0G
	33	HA0	40	1,100	HHXC630□RA330MHA0G
	33	JA0	30	1,400	HHXC630□RA330MJA0G
	47	HA0	40	1,100	HHXC630□RA470MHA0G
	56	JA0	30	1,400	HHXC630□RA560MJA0G
	82	JA0	30	1,400	HHXC630□RA820MJA0G

□ : Enter the appropriate terminal code.

**◆RATED RIPPLE CURRENT MULTIPLIERS**

## ●Frequency Multipliers

Capacitance(μF)	Frequency(Hz)						
	120	1k	5k	10k	20k	30k	100k to 500k
to 10	0.03	0.30	0.50	0.60	0.70	0.75	1.00
15 to 33	0.07	0.30	0.50	0.60	0.70	0.75	1.00
47 to 150	0.10	0.40	0.60	0.70	0.80	0.80	1.00
220 to 470	0.13	0.45	0.65	0.75	0.85	0.85	1.00