



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

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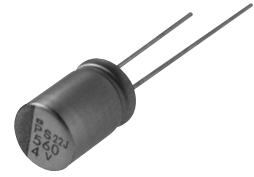
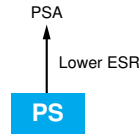
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NPCAP™-PS Series

- Super low ESR, high temperature resistance
- Large capacitance & Improved high ripple current capability
- Rated voltage range : 2.5 to 35V_{dc}
- Endurance : 2,000 hours at 105°C
- Suitable for DC-DC converters, voltage regulators and decoupling applications
For computer motherboards
- RoHS Compliant



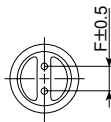
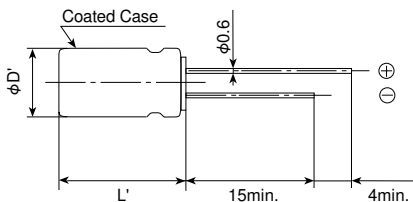
◆ SPECIFICATIONS

Items	Characteristics										
Category Temperature Range	-55 to +105°C										
Rated Voltage Range	2.5 to 35V _{dc}										
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)										
Surge Voltage	Rated voltage×1.15 (at 105°C)										
Leakage Current *Note	I=0.2CV (Rated voltage 2.5 to 25V _{dc}) / I=0.5CV (Rated voltage 35V _{dc}) Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V _{dc}) (at 20°C after 2 minutes)										
Dissipation Factor (tanδ)	0.12 max. (at 20°C, 120Hz)										
Low Temperature Characteristics (Max. Impedance Ratio)	Z(-25°C)/Z(+20°C)≤1.15 Z(-55°C)/Z(+20°C)≤1.25 (at 100kHz)										
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 105°C.										
	<table border="1"> <tr><td>Appearance</td><td>No significant damage</td></tr> <tr><td>Capacitance change</td><td>≤±20% of the initial value</td></tr> <tr><td>D.F. (tanδ)</td><td>≤150% of the initial specified value</td></tr> <tr><td>ESR</td><td>≤150% of the initial specified value</td></tr> <tr><td>Leakage current</td><td>≤The initial specified value</td></tr> </table>	Appearance	No significant damage	Capacitance change	≤±20% of the initial value	D.F. (tanδ)	≤150% of the initial specified value	ESR	≤150% of the initial specified value	Leakage current	≤The initial specified value
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Leakage current	≤The initial specified value										
Bias Humidity Test	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to DC voltage at 60°C, 90 to 95% RH for 1,000 hours.										
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ESR	≤150% of the initial specified value										
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Surge Voltage Test	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltage specified at 105°C for 30 seconds through a protective resistor(R=1kΩ) and discharge for 5 minutes 30 seconds.										
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D.F. (tanδ)	≤150% of the initial specified value										
ESR	≤150% of the initial specified value										
Leakage current	≤The initial specified value										
Failure Rate	0.5% per 1,000 hours maximum (Confidence level 60% at 105°C)										

*Note : If any doubt arises, measure the leakage current after the following voltage treatment.
Voltage treatment : DC rated voltage is applied to the capacitors for 120 minutes at 105°C.

◆ DIMENSIONS [mm]

- Terminal Code : E



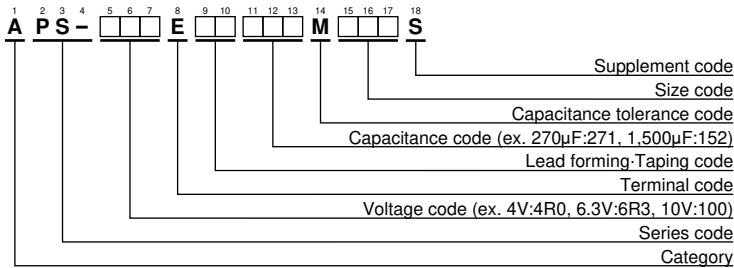
Size code	HB5	JC5
φD	8	10
φd		0.6
F	3.5	5.0
φD'	φD+0.5max.	
L'	L+1.5max.	

◆ MARKING

EX) 4V820μF



◆PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

WV(Vdc)	Cap(µF)	Case size φD×L(mm)	ESR (mΩmax/20°C, 100k to 300kHz)	Rated ripple current (mArms/105°C, 100kHz)	Part No.
2.5	680	8×11.5	10	5,230	APS-2R5E□□681MHB5S
	820	8×11.5	10	5,230	APS-2R5E□□821MHB5S
	1500	10×12.5	8	5,500	APS-2R5E□□152MJC5S
4	560	8×11.5	10	5,230	APS-4R0E□□561MHB5S
	820	10×12.5	8	5,500	APS-4R0E□□821MJC5S
	1000	10×12.5	8	5,500	APS-4R0E□□102MJC5S
	1200	10×12.5	8	5,500	APS-4R0E□□122MJC5S
6.3	390	8×11.5	12	4,770	APS-6R3E□□391MHB5S
	470	8×11.5	12	4,770	APS-6R3E□□471MHB5S
	680	10×12.5	10	5,500	APS-6R3E□□681MJC5S
	820	10×12.5	10	5,500	APS-6R3E□□821MJC5S
	1000	10×12.5	10	5,500	APS-6R3E□□102MJC5S
10	270	8×11.5	14	4,420	APS-100E□□271MHB5S
	330	8×11.5	14	4,420	APS-100E□□331MHB5S
	470	10×12.5	12	5,300	APS-100E□□471MJC5S
	560	10×12.5	12	5,300	APS-100E□□561MJC5S
16	100	8×11.5	16	4,360	APS-160E□□101MHB5S
	180	8×11.5	16	4,360	APS-160E□□181MHB5S
	270	10×12.5	14	5,050	APS-160E□□271MJC5S
	330	10×12.5	14	5,050	APS-160E□□331MJC5S
20	100	8×11.5	24	3,320	APS-200E□□101MHB5S
	150	10×12.5	20	4,320	APS-200E□□151MJC5S
25	68	8×11.5	24	3,320	APS-250E□□680MHB5S
	100	10×12.5	20	4,320	APS-250E□□101MJC5S
35	18	8×11.5	34	2,830	APS-350E□□180MHB5S
	33	10×12.5	30	3,270	APS-350E□□330MJC5S

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