

# NPS

## +85°C Non-Polar Surface Mount Chip Aluminum Electrolytic Capacitors



### FEATURES

- Audio Coupling
- Wide Capacitance Range: .1 to 47  $\mu$ F
- Standard Case Sizes
- Solvent Proof
- Operating Voltage Range: 6.3WVDC to 50 WVDC

### SPECIFICATIONS

Capacitance Tolerance		$\pm 20\%$ at 120Hz, 20°C					
Operating Temperature Range		$-40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$					
Dissipation Factor 120Hz 20°C (Max)	WVDC	6.3	10	16	25	35	50
	$\tan \delta$	.24	.20	.18	.18	.14	.14
Leakage current	Time	1 minutes					
		0.03 CV+6 $\mu$ A					
Impedance Ratio at Low Temperature (120Hz)	$-25^{\circ}\text{C}/20^{\circ}\text{C}$	4	3	2	2	2	2
	$-40^{\circ}\text{C}/20^{\circ}\text{C}$	8	6	4	4	3	3
Load Life	2,000 hours at 85°C with rated voltage						
	Capacitance change Dissipation factor Leakage current	$\leq 20\%$ of initial measured values $\leq 200\%$ initial specified value $\leq 100\%$ Initial specified value					
Shelf Life	1,000 hours at 85°C with no applied voltage.						
Resistance to Soldering Heat	Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminals facing downward will fulfill the following conditions after being cooled to room temperature.						
	Capacitance change Dissipation factor Leakage current	$\leq 10\%$ of the initial measured value $\leq$ The initial specified value $\leq$ The Initial specified value					

## STANDARD PART LISTING

Capacitance (μF)	WVDC	IC PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (mA) at 120Hz, +85°C	Dimensions DxL (mm)
0.1	50	104NPS050M	2321.01	1	4x5.4
0.22	50	224NPS050M	1055.00	2.3	4x5.4
0.33	50	334NPS050M	703.34	3.5	4x5.4
0.47	50	474NPS050M	493.83	5	4x5.4
1	50	105NPS050M	232.10	10	4x5.4
2.2	35	225NPS035M	105.50	8.4	4x5.4
2.2	50	225NPS050M	105.50	15	5x5.4
3.3	50	335NPS050M	70.33	18	5x5.4
4.7	16	475NPS016M	63.49	12	4x5.4

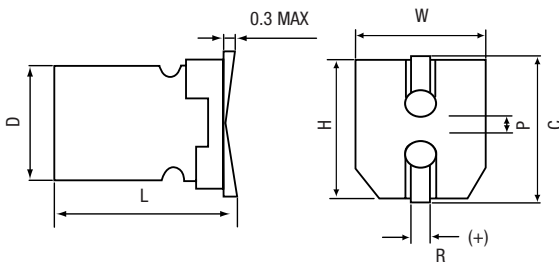
Capacitance (μF)	WVDC	IC PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (mA) at 120Hz, +85°C	Dimensions DxL (mm)
4.7	35	475NPS035M	49.38	23	5x5.4
4.7	50	475NPS050M	49.38	23	6.3x5.4
10	10	106NPS010M	33.157	17	4x5.4
10	16	106NPS016M	29.842	25	5x5.4
10	35	106NPS035M	23.210	30	6.3x5.4
22	6.3	226NPS6R3M	18.086	31	5x5.4
22	16	226NPS016M	13.564	39	6.3x5.4
33	16	336NPS016M	9.043	57	6.3x5.4
47	6.3	476NPS6R3M	8.466	47	6.3x5.4

## PHYSICAL DIMENSIONS

WVDC (SV) (μF)	6.3 (7.9)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)
0.1						4x5.4
0.22						4x5.4
0.33						4x5.4
0.47						4x5.4
1						4x5.4
2.2					4x5.4	5x5.4
3.3						5x5.4
4.7			4x5.4		5x5.4	6.3x5.4
10		4x5.4	5x5.4		6.3x5.4	
22	5x5.4		6.3x5.4			
33			6.3x5.4			
47	6.3x5.4					

(mm)

## DIMENSIONS



D+0.5 MAX	L	W±0.2	H±0.2	C±0.2	R	P±0.2
4	5.4 +0.1/-0.2	4.3	4.3	5.0	0.5-0.8	1.0
5	5.4 +0.1/-0.2	5.3	5.3	6.0	0.5-0.8	1.4
6.3	5.4 +0.1/-0.2	6.6	6.6	7.3	0.5-0.8	2.2

(mm)