

## Standard models of Black Gate capacitors(DC)



Made of quality materials through the use of sophisticated automated equipment. In this case, no magnetic material is used. Low E.S.R. compared with conventional electrolytic capacitors. Excellent even at low temperatures. Suitable for all kinds of electronic equipment. Can improve the S/N ratio of the equipment and lower distortion. Capacity tolerance:  $\pm 20\%$

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)	
16WV	10 $\mu$ F	5 x 11	
	22 $\mu$ F	6.3 x 11	
	33 $\mu$ F	6.3 x 11	
	47 $\mu$ F	8 x 11	
	100 $\mu$ F	10 x 12.5	
	220 $\mu$ F	10 x 20	
	330 $\mu$ F	12.5 x 20	
	470 $\mu$ F	12.5 x 25	
	1000 $\mu$ F	16 x 25	
	2200 $\mu$ F	16 x 31.5	
25WV	+	1000 $\mu$ F	
	▲	4700 $\mu$ F	
50WV	10 $\mu$ F	8 x 11	
	33 $\mu$ F	10 x 16	
	47 $\mu$ F	10 x 16	
	100 $\mu$ F	12.5 x 20	
	220 $\mu$ F	16 x 25	
	330 $\mu$ F	16 x 31.5	
	470 $\mu$ F	16 x 35.5	
	1000 $\mu$ F	22 x 42	
	▲	4700 $\mu$ F	40 x 50
	100WV	4.7 $\mu$ F	8 x 11
10 $\mu$ F		10 x 12.5	
22 $\mu$ F		10 x 20	
47 $\mu$ F		12.5 x 25	
100 $\mu$ F		16 x 25	
160WV	*H	33 $\mu$ F	
	*	100 $\mu$ F	
	●	470 $\mu$ F	
250WV	*	3.3 $\mu$ F	
	*	10 $\mu$ F	

\* For Hi-Fi TV set  
▲ Lug terminal type  
● PCB terminal type

## For AC power use Black Gate AC



Designed for use in a loud speaker networks. A breakthrough in this class of products providing a solution to problems of inadequate power and information in the mid-to low-frequency band with loud speakers. Capacity tolerance:  $\pm 10\%$

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)
50WV	6.8 $\mu$ F	16 x 32
	10 $\mu$ F	16 x 36
	15 $\mu$ F	18 x 36
	22 $\mu$ F	22 x 41
	47 $\mu$ F	25 x 51

## Very Low-noise Type for Coupling Black Gate C (DC)



Designed for coupling between circuits with a direct-current potential difference. Features better leakage and distortion characteristics than tantalum capacitors. Lead lines fixed with resin for resistance against shock noise. Capable of transmitting signals at a high level of performance in a small electronic device. Suitable for use in high-gain pre/main amplifiers, small audio systems, and video systems.

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)
50WV	1 $\mu$ F	5 x 12.5
	2.2 $\mu$ F	5 x 12.5
	4.7 $\mu$ F	6.3 x 12.5
	10 $\mu$ F	8 x 13
	47 $\mu$ F	10 x 21.5

## High-performance K Series (DC)



Successfully eliminated ion distortion and also nonlinear distortion which is inevitable with conventional polarized electrolyte capacitors because of the non-reversibility of the electrodes. Keeps the total amount of distortion down to -15(dB) or less. Comparable with high-performance film capacitors. Suitable for all types of electronic equipment including audio systems, video equipment, OA equipment, communication equipment and military devices.

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)
16WV	FK	47 $\mu$ F
	FK	100 $\mu$ F
	FK	220 $\mu$ F
	FK	470 $\mu$ F
25WV	FK	100 $\mu$ F
	FK	220 $\mu$ F
35WV	FK	2200 $\mu$ F
50WV	K	100 $\mu$ F
	FK	1000 $\mu$ F
63WV	▲FK	2200 $\mu$ F
	▲FK	10000 $\mu$ F
80WV	■FK	10000 $\mu$ F
100WV	FK	100 $\mu$ F
	■K	10000 $\mu$ F
160WV	VK	47 $\mu$ F
	●	47 $\mu$ F
350WV	●	22 $\mu$ F
	●	150 $\mu$ F

\* Computer application grade super low E.S.R.  
▲ Lug terminal type  
■ High-power type with screw leads  
● PCB terminal type

## Computer Grade Black Gate V (DC)



The E.S.R. Characteristic is so superior that its value shows 1/8 to 1/10 lower than ordinary capacitors. Suitable for low-noise equipment, switching supply, video equipment and OA equipment.

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)
16WV	330 $\mu$ F	12.5 x 20

## Compatible with both AC and DC Black Gate N and NX



Developed based on the concept of the K Series. A family of completely symmetric electrolytic capacitors. Functions in the same manner as film capacitors within the withstanding voltage. A compact, large-capacity package which film capacitors are not capable of. Can realize new types of high-performance equipment requiring NF circuits, coupling circuits and bias circuits, etc. The NX Series further improved performance of the N Series.

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)
6.3WV	○NX	22 $\mu$ F
	○NX	47 $\mu$ F
	▲NX	100 $\mu$ F
	▲NX	220 $\mu$ F
	N	470 $\mu$ F
	NX	470 $\mu$ F
	NX	2200 $\mu$ F
10WV	◆NX	1500 $\mu$ F
16WV	N	33 $\mu$ F
	N	100 $\mu$ F
	N	470 $\mu$ F
25WV	◆NX	1000 $\mu$ F
35WV	◆NX	680 $\mu$ F
	▲N	4700 $\mu$ F
50WV	○NX	0.1 $\mu$ F
	○NX	0.47 $\mu$ F
	N	1 $\mu$ F
	N	4.7 $\mu$ F
	N	10 $\mu$ F
	N	47 $\mu$ F
	N	100 $\mu$ F
●N	1000 $\mu$ F	
100WV	N	330 $\mu$ F
	▲N	2200 $\mu$ F

\* For DC/DC converters  
◆ For SR  
○ High frequency Hi-Q series  
▲ Lug terminal type  
● PCB terminal type

## Compatible with both AC and DC Black Gate MH series



Jelmax has again developed a new and surprising product. Operation voltage of non-polarized Black Gates is extended to 160 V and 350 V at one time. This enables the AC operation which is impossible for the general capacitors and lossless rectifying and smoothing of AC power supplies. It is, therefore, expected to provide a revolutionary devices with this product.

For more details, see our catalog of Super-electrolytic capacitor.

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)
160WV	●	100 $\mu$ F
	●	220 $\mu$ F
350WV	●	68 $\mu$ F
	●	150 $\mu$ F

## Lug terminal type for high-voltage power supply smoothing Black Gate WK(DC)



Developed for use in Hi-Fi vacuum tube amplifiers. Unrivaled as regards the transparency of high-frequency band and the resolution and presence of mid-to-low frequency band. With a diameter of 35 mm, this series is compatible with conventional products.

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)
500WV	▲	100 $\mu$ F
	▲	47 $\mu$ F x 2
	▲	100 $\mu$ F x 2
350WV	▲	100 $\mu$ F x 2
	▲	220 $\mu$ F x 2

◆ For SR ▲ Lug terminal type ● PCB terminal type

## Black Gate-WK POWER TANK



In addition to all of the tremendous performance of non-polarized capacitors, the WK series offers high voltage operation. The POWER TANK is an innovative capacitor capable of handling high voltages and currents. It has a long life, an asymmetrical, non-polarized construction and a compact body.

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)
200WV	●	220 $\mu$ F

● PCB terminal type

## Very-small High-performance Black Gate PK Series(DC)



A family of very compact capacitors capable of delivering the high performance of large models. Suitable for use in all types of electronic equipment including OA equipment, communications equipment, illumination equipment, etc.

RATED VOLTAGE(wv)	NOMINAL CAPACITANCE( $\mu$ F)	DIMENSIONS D x L(mm)
4WV	220 $\mu$ F	6.3 x 7
6.3WV	22 $\mu$ F	4 x 7
	33 $\mu$ F	5 x 7
	47 $\mu$ F	5 x 7
	100 $\mu$ F	6.3 x 7
10WV	22 $\mu$ F	5 x 7
	33 $\mu$ F	5 x 7
	47 $\mu$ F	6.3 x 7
	100 $\mu$ F	6.3 x 7
16WV	10 $\mu$ F	4 x 7
	22 $\mu$ F	5 x 7
	33 $\mu$ F	6.3 x 7
	47 $\mu$ F	6.3 x 7
25WV	4.7 $\mu$ F	4 x 7
	10 $\mu$ F	5 x 7
	22 $\mu$ F	6.3 x 7
	33 $\mu$ F	6.3 x 7
	47 $\mu$ F	6.3 x 7
	100 $\mu$ F	6.3 x 7
35WV	3.3 $\mu$ F	4 x 7
	4.7 $\mu$ F	4 x 7
	10 $\mu$ F	5 x 7
	22 $\mu$ F	6.3 x 7
	33 $\mu$ F	6.3 x 7
	47 $\mu$ F	6.3 x 7
	100 $\mu$ F	6.3 x 7
50WV	0.1 $\mu$ F	4 x 7
	0.22 $\mu$ F	4 x 7
	0.33 $\mu$ F	4 x 7
	0.47 $\mu$ F	4 x 7
	1 $\mu$ F	4 x 7
	2.2 $\mu$ F	4 x 7
	3.3 $\mu$ F	4 x 7
4.7 $\mu$ F	5 x 7	
10 $\mu$ F	5 x 7	
22 $\mu$ F	6.3 x 7	
63WV	0.47 $\mu$ F	4 x 7
	1 $\mu$ F	4 x 7
	2.2 $\mu$ F	4 x 7
	3.3 $\mu$ F	5 x 7
100WV	0.47 $\mu$ F	4 x 7
	1 $\mu$ F	4 x 7
	2.2 $\mu$ F	5 x 7
	3.3 $\mu$ F	6.3 x 7

Sold-faced models are standard stock items

\* The contents above will be changed without notice