

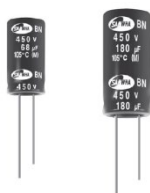
SAMWHA Electric's smallest radial series

To improve current long life "KJ" series, SAMWHA electric has developed "BN" series. Main focus on miniaturization and higher ripple current, the new series will lead SAMWHA into new market of smart home.

"BN" series, offered in high voltages of 450V and 500V, has high reliability withstanding 12000 hours load life at 105°C. Compared to "KJ" series, it offers smaller size and 10% ripple current increase. For instance, 450V 150μF is offered at Φ18 x height 45mm with 1740mA rms in KJ whereas improved "BN" series offers Φ18 x height 40mm with 2000mA rms. This improvement is ideal for long life product required applications.

With "KJ" series already experiencing approval and mass production in high-end smart home applications, home appliance and new generation internet devices' markets, SAMWHA electric's "BN" series is developed by SAMWHA Electric's R&D to meet the needs of engineers in smart home market. The market which has been developing rapidly especially in south east Asia. Thus, its miniaturized and improved characteristics offer more options and stability in applications. Smart meter, electric shutters, interphones with LED display and network function and display on new home appliances such as refrigerators, "BN" series certainly provides possibilities for smart home markets.

● Key Features and dimensions ("BN" Series)



Item	Characteristics		
Operating temperature range	-40 ~ +105°C		
Leakage current max.	I = 0.04CV + 100μA (after 1 minute) I = 0.02CV + 25μA (after 5 minutes)		
Capacitance tolerance	±20% at 120Hz, 20°C		
Dissipation factor max. (at 120Hz, 20°C)	WV	450, 500	
	tanδ	0.24	
Low temperature characteristics (Impedance ratio at 120Hz)	WV	450	500
	Z-25°C/Z+20°C	6	6
	Z-40°C/Z+20°C	6	11
Load life	After an application of DC bias voltage plus the rated AC ripple current for 12000 hours at 105°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.		
	Leakage current	Less than specified value	
	Capacitance change	Within ±30% of initial value	
	tanδ	Less than 300% of specified value	
Shelf life (at 105°C)	After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4		

μF	WV	450		500	
	68		18 × 25	1500	18 × 31.5
100		18 × 31.5	1700	18 × 40	1750
120		18 × 35.5	1900	18 × 45	1950
150		18 × 40	2000	18 × 50	2050
180		18 × 45	2180		