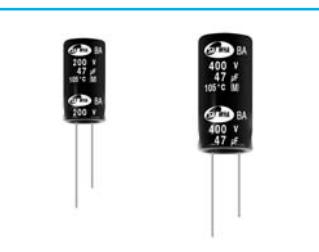
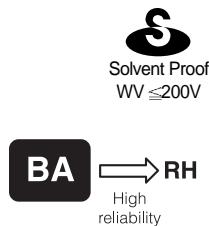


# MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



For Ballast, Smaller Case Size  
Series

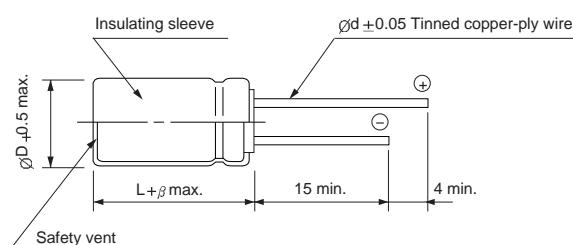
- 105°C 2000 hours
- Smaller case size for energy saving lamp & ballast



Item	Characteristics						
<b>Operating temperature range</b>	-40 ~ +105°C (160~250V), -25 ~ +105°C (350~450V)						
<b>Rated voltage range</b>	160 ~ 450 V.DC						
<b>Leakage current max.</b>	$I = 0.03CV + 15\mu A$ ( $CV \leq 1000$ ) $I = 0.02CV + 25\mu A$ (after 5 minutes)						
<b>Capacitance tolerance</b>	$\pm 20\%$ at 120Hz, 20°C						
<b>Dissipation factor max. (at 120Hz, 20°C)</b>	WV	160	200	250	350	400	450
	$\tan\delta$	0.10	0.10	0.10	0.15	0.15	0.15
<b>Low temperature characteristics (Impedance ratio at 120Hz)</b>	WV	160	200	250	350	400	450
	Z-25°C/Z+20°C	3	3	3	4	6	6
	Z-40°C/Z+20°C	4	4	4	-	-	-
<b>Load life</b>	After an application of DC bias voltage plus the rated AC ripple current for 2000 hours at 105°C. The measurement shall meet the following limits.						
	Leakage current	Less than specified value					
	Capacitance change	Within $\pm 20\%$ of initial value					
	$\tan\delta$	Less than 200% of specified value					
<b>Shelf life (at 105°C)</b>	After 1000 hours no load test, leakage current, capacitance and $\tan\delta$ are same as load life value. The measurement shall be performed after exposure for 24 hours at room temperature after application of DC rated voltage to the capacitors for 30 minutes.						

## DRAWING

Unit : mm



ØD	8	10	12.5	16	18
P	3.5	5.0	5.0	7.5	7.5
Ød	0.6	0.6	0.6	0.8	0.8
β	1.0			2.0	

## DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu F$	WV	160V	200V	250V	350V	400V	450V
1.0						8 × 11.5	27
2.2					10 × 12.5	37	10 × 12.5
3.3				10 × 12.5	44	10 × 12.5	53
4.7		8 × 11.5	53	10 × 12.5	53	10 × 16	64
10	10 × 12.5	77	10 × 12.5	86	10 × 16	88	10 × 20
22	10 × 16	140	10 × 16	140	10 × 20	168	12.5 × 20
33	10 × 20	206	10 × 20	206	12.5 × 20	223	16 × 20
47	10 × 20	266	12.5 × 20	266	12.5 × 25	297	16 × 25
100	12.5 × 25	420	16 × 25	460	18 × 25	470	Ripple current (mA rms) at 105°C, 120Hz
220	18 × 25	500					Case size ØD × L (mm)

## FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

$\mu F$	60	120	300	1k	10k ~ 50k	100k
~ 47	0.75	1.0	1.35	1.55	2.0	2.0
68 ~	0.80	1.0	1.25	1.34	1.5	1.5