

## ASAB Series

- Feature: Low ESL 、Miniaturization (B size)
- Endurance 2000hrs at 105°C
- Rate voltage: 10-35 Vdc.



| Specifications             |                                                                                                                                                                                                            |                                                                                                                       |                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Item                       | Conditions                                                                                                                                                                                                 | Characteristics                                                                                                       |                                                          |
| Category Temperature Range |                                                                                                                                                                                                            | -40~ +105°C                                                                                                           |                                                          |
| Rated Voltage Range        |                                                                                                                                                                                                            | 10 to 35 V.DC,                                                                                                        |                                                          |
| Capacitance Tolerance      | at 20°C, 120Hz                                                                                                                                                                                             | ±20 %                                                                                                                 |                                                          |
| Leakage Current            | at 20°C after 2 minutes                                                                                                                                                                                    | $I \leq 0.3CV$ (10 V.DC to 35 V.DC)<br>$I$ : Leakage Current(μA), $C$ : Rated Capacitance(μF), $V$ : Rated Voltage(V) |                                                          |
| Surge Voltage              | 15°C to 35°C                                                                                                                                                                                               | Rated voltage × 1.15 (10 V.DC to 35 V.DC)                                                                             |                                                          |
| Dissipation Factor (tanδ)  | at 20°C , 120Hz                                                                                                                                                                                            | 0.10 max.                                                                                                             |                                                          |
| Endurance                  | 105°C, rated voltage applied,2000 hrs                                                                                                                                                                      | Appearance                                                                                                            | No significant damage                                    |
|                            |                                                                                                                                                                                                            | Capacitance Change                                                                                                    | ±20% of initial value                                    |
|                            |                                                                                                                                                                                                            | Dissipation Factor                                                                                                    | ≤ 200% of the initial specified value                    |
|                            |                                                                                                                                                                                                            | Leakage Current                                                                                                       | 10 V.DC to 35 V.DC ≤ within the initial limit            |
| Damp Heat, Steady State    | 60°C, 90 to 95%RH, 500 hrs.                                                                                                                                                                                | Appearance                                                                                                            | No significant damage                                    |
|                            |                                                                                                                                                                                                            | Capacitance Change                                                                                                    | (10 V.DC to 35 V.DC ) +60%, -20% of the initial value    |
|                            |                                                                                                                                                                                                            | Dissipation Factor                                                                                                    | ≤ 200% of the initial specified value                    |
|                            |                                                                                                                                                                                                            | Leakage Current                                                                                                       | 10 V.DC to 35 V.DC ≤ 300% of the initial specified value |
| Surge Voltage              | The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages, at 15°C to 35 °C for 30 seconds through a protective resistor(R=1KΩ)and discharge for 5min 30 seconds. | Appearance                                                                                                            | No significant damage                                    |
|                            |                                                                                                                                                                                                            | Capacitance Change                                                                                                    | ±10% of the initial value                                |
|                            |                                                                                                                                                                                                            | Dissipation Factor                                                                                                    | within the initial specified value                       |
|                            |                                                                                                                                                                                                            | Leakage Current                                                                                                       | within the initial specified value                       |
| Solderability              | Pb-free solder<br>Around 25% rosin melted ethanol or isopropylalcohol<br>Temperature : 245 ± 5 °C<br>Immersing time : 2 ± 0.5 s                                                                            | More than 95% of outer terminal surface to be covered                                                                 |                                                          |
| Resistance to Solvents     | Solvent : isopropylalcohol<br>Immersing time : 30 ± 5 s<br>Room temperature                                                                                                                                | No significant damage and marking readable                                                                            |                                                          |
| Shelf life                 | Test temperature:105±2°C<br>Test time:500hrs.                                                                                                                                                              | Appearance                                                                                                            | No significant damage                                    |
|                            |                                                                                                                                                                                                            | Capacitance Change                                                                                                    | ±10% of the initial value                                |
|                            |                                                                                                                                                                                                            | Dissipation Factor                                                                                                    | within the initial specified value                       |
|                            |                                                                                                                                                                                                            | Leakage Current                                                                                                       | within the initial specified value                       |

ASAB Series

Standard Ratings

| WV<br>(VDC) | Case size (mm) |     |     | Specifications    |                     |                                        |                              | Ripple Current* <sup>1</sup><br>(mA r.m.s)<br>@100kHz | Part No.       |
|-------------|----------------|-----|-----|-------------------|---------------------|----------------------------------------|------------------------------|-------------------------------------------------------|----------------|
|             | L              | W   | H   | Cap<br>(μF)@120Hz | tanδ Max.<br>@120Hz | ESR Max.* <sup>2</sup><br>(mΩ) @100kHz | Leakage Current<br>Max. (μA) |                                                       |                |
| 10          | 3.5            | 2.8 | 1.9 | 33                | 0.1                 | 80                                     | 99                           | 2000                                                  | ASAB100S330E80 |
| 16          | 3.5            | 2.8 | 1.9 | 10                | 0.1                 | 100                                    | 48                           | 2000                                                  | ASAB160S100EA0 |
|             | 3.5            | 2.8 | 1.9 | 33                | 0.1                 | 60                                     | 158.4                        | 2000                                                  | ASAB160S330E60 |
|             | 3.5            | 2.8 | 1.9 | 33                | 0.1                 | 90                                     | 158.4                        | 2000                                                  | ASAB160S330E90 |
| 25          | 3.5            | 2.8 | 1.9 | 15                | 0.1                 | 40                                     | 112.5                        | 2000                                                  | ASAB250S150E40 |
|             | 3.5            | 2.8 | 1.9 | 15                | 0.1                 | 60                                     | 112.5                        | 2000                                                  | ASAB250S150E60 |
|             | 3.5            | 2.8 | 1.9 | 15                | 0.1                 | 100                                    | 112.5                        | 2000                                                  | ASAB250S150EA0 |
|             | 3.5            | 2.8 | 1.9 | 22                | 0.1                 | 60                                     | 165                          | 2000                                                  | ASAB250S220E60 |
|             | 3.5            | 2.8 | 1.9 | 22                | 0.1                 | 100                                    | 165                          | 2000                                                  | ASAB250S220EA0 |

\*1:Ripple Current:(100kHz / +45℃)

\*2:ESR Max (100kHz / +20℃)

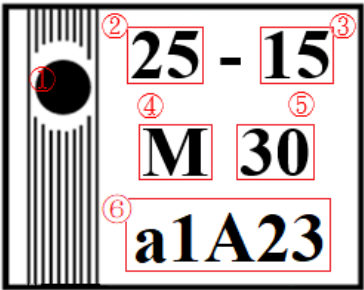
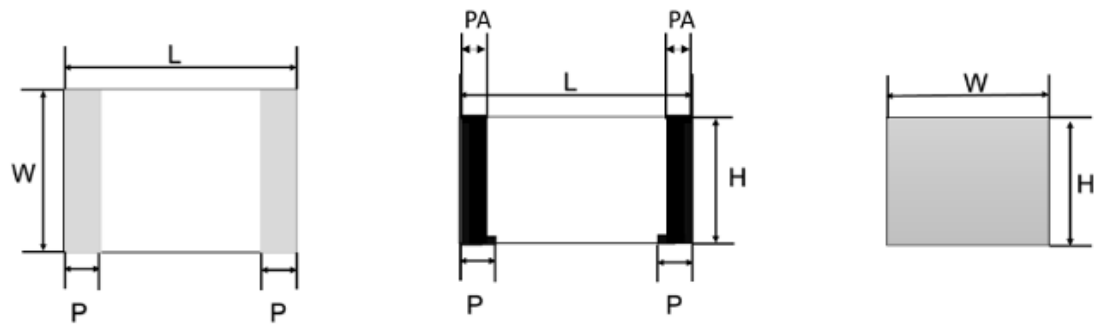
| Temperature Compensation Multipliers for Ripple Current |       |               |                |
|---------------------------------------------------------|-------|---------------|----------------|
|                                                         | ≤ 45℃ | 45℃ < T ≤ 85℃ | 85℃ < T ≤ 105℃ |
| 10 V.DC to 35 V.DC                                      | 1.0   | 0.8           | 0.5            |

PRODUCT IDENTIFICATION

|         |               |             |             |           |
|---------|---------------|-------------|-------------|-----------|
| ASAB    | 250           | S           | 150         | E40       |
| Product | Rated Voltage | Case Height | Capacitance | ESR       |
|         | 250: 25V      | S:1.9mm     | 150=15μF    | E40: 40mΩ |

DIMENSIONS AND MARKING

|           |         |         |         |         |       |
|-----------|---------|---------|---------|---------|-------|
| Case size | L       | W       | H       | P       | PA    |
| B         | 3.5±0.2 | 2.8±0.2 | 1.9±0.1 | 0.8±0.2 | ≤ 0.3 |



- ① Polarity Bar (+)
- ② Rated Voltage
- ③ Rated Capacity
- ④ Year (Q for 2025 、 R for 2026 、 S for 2027 、 T for 2028)
- ⑤ Week
- ⑥ Serial Code