DC-Link Film Capacitor
Series: TYPE1

Features
- High safety, Self-healing and Self-protecting function built in.
- No catastrophic failure upon natural end of life due to inbuilt fuse function.
- Open circuit failure mode by fuse function patterned electrode
- Can replace Electrolytic Capacitor
- Low ESR, High Ripple Current capability
- Low ESL
- RoHS directive compliant

Recommended applications
- Any automotive and/or other application requiring DC Linkage
  ✽ Verify the usage and fitting environments, and make sure to observe the rated performance specified in the corresponding specifications.

Construction
- Dielectric: Polypropylene
- Electrode: Metallized dielectric with Segment pattern
- Plastic Case: PPS. equivalent to UL94 V-0
- Sealing: Epoxy Resin equivalent to UL94 HB
- Terminal: Copper with Tin plating

Explanation of part number

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Specifications

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<tr>
<td>Operating temperature on the surface of the case</td>
<td>–40°C to +105°C including self heat generation</td>
</tr>
<tr>
<td>Capacitance</td>
<td>581 μF ±3% at 1 kHz, 25°C</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>450 V.DC</td>
</tr>
<tr>
<td>Maximum voltage</td>
<td>600 V.DC for 60 sec in life time</td>
</tr>
<tr>
<td>Rated ripple current</td>
<td>Continuous 80 Arms at 10 kHz</td>
</tr>
<tr>
<td>Current derating</td>
<td>Refer Fig.1</td>
</tr>
<tr>
<td>ESR</td>
<td>0.8 mΩ or less at 10KHz</td>
</tr>
<tr>
<td>ESL</td>
<td>20 nH or less at 1 MHz</td>
</tr>
<tr>
<td>Insulation Resistance between Terminals and Case</td>
<td>1 GΩ or moreMeasure after applying 500 V.DC for 2 seconds.</td>
</tr>
<tr>
<td>Dimensions L × W × H (Typical data)</td>
<td>164 × 115 × 43.1 mm: Excluding terminals</td>
</tr>
<tr>
<td>Weight (Typical data)</td>
<td>980 g</td>
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Note:
1) Voltage includes ripple voltage
2) Derate the current when the maximum surface temperature exceeds 95 degC, as shown in Fig. 1.
**Current Derating**

![Current derating curve](image)

**Dimensions**

![Dimensions](image)

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Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

02 Sep. 2017
Plastic Film Capacitors

**Characteristics <Reference>**

*<Temperature characteristics (Typical curve)>*

- **Change of capacitance**

![Graph of Change of Capacitance](image1)

*<Frequency characteristics (Typical curve)>*

- **Equivalent series resistance**

![Graph of Equivalent Series Resistance](image2)

*<Lifetime Expectancy (Reference)>*

- Expected life : 15,000 hours
- Failure in Time : 300 Fits

The above values are reference calculated under an pre-assumed average operating condition.
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