Metallized Polypropylene Film Capacitor - Power electronic capacitor

DC-Link Film Capacitor Standard 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



■Application

Any automotive and/or other application requiring DC Linkage

Werify 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 CaseSealingEpoxy Resin equivalent to UL94 HB

Terminal : Copper with Tin plating

■ Product Part Number

● EZTVKCTYP1HA

■Specification

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|--|---|
| Item | Specification |
| Operating Temperature on the Surface of the Case | -40 °C to +105 °C including self heat generation |
| Capacitance | 581uF +10%/-5% @1kHz, 25 °C |
| Rated Voltage | 450 VDC |
| Maximum Voltage | 600 VDC for 60 sec in life time |
| Rated Ripple Current | Continuous 80 Arms at 10kHz |
| Current Derating | Refer Fig.1 |
| ESR | 0.8mΩ or less at 10KHz |
| ESL | 20 nH or less at 1MHz |
| Insulation Resistance between Terminals and Case | 1 $G\Omega$ or more |
| | Measure after applying DC500+50/-0V for 2+2/-0 seconds. |
| Dimensions L x W x H (Typical data) | 164 x 115 x 43.1 mm : Excluding terminals |
| Weight (Typical data) | 980 g |

Note:

- 1) Voltage includes ripple voltage
- 2) Derate the current when the maximum surface temperature exceeds 95degC, as shown in Fig.1.

■Current Derating

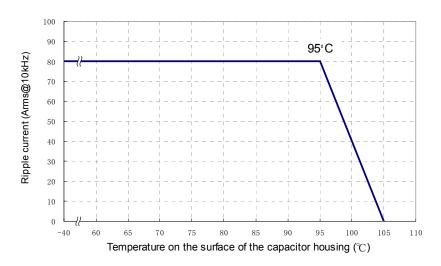
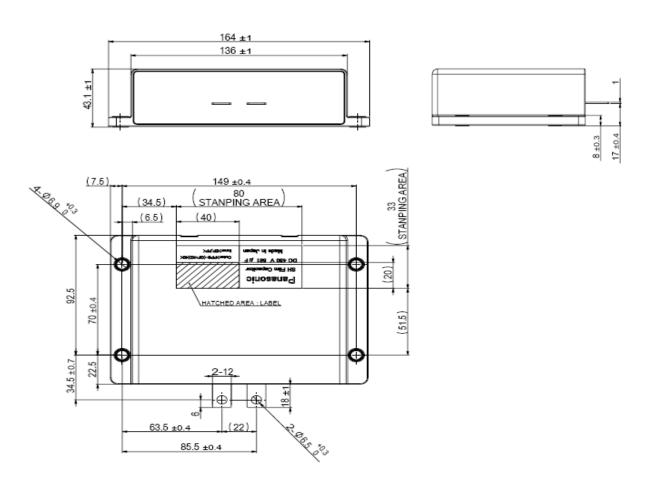


Fig.1 Current derating curve

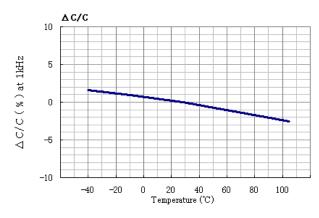
■ Dimensions (in mm)



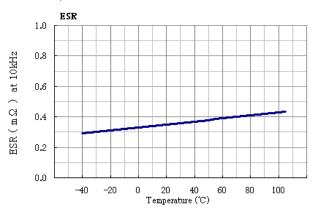
■Characteristics <Reference>

<Temperature Characteristics (Typical Curve)>

Change of Capacitance

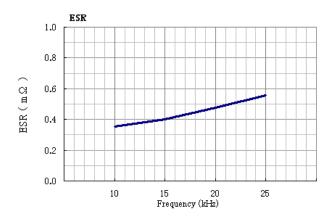


Equivalent Series Resistance



<Frequency Characteristics (Typical Curve)>

Equivalent Series Resistance



<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