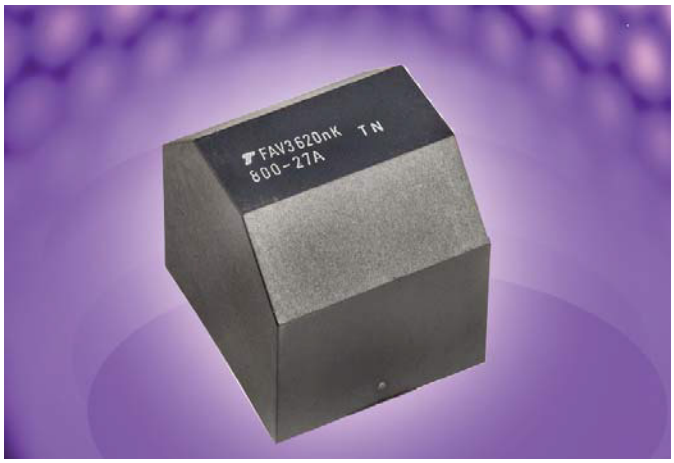
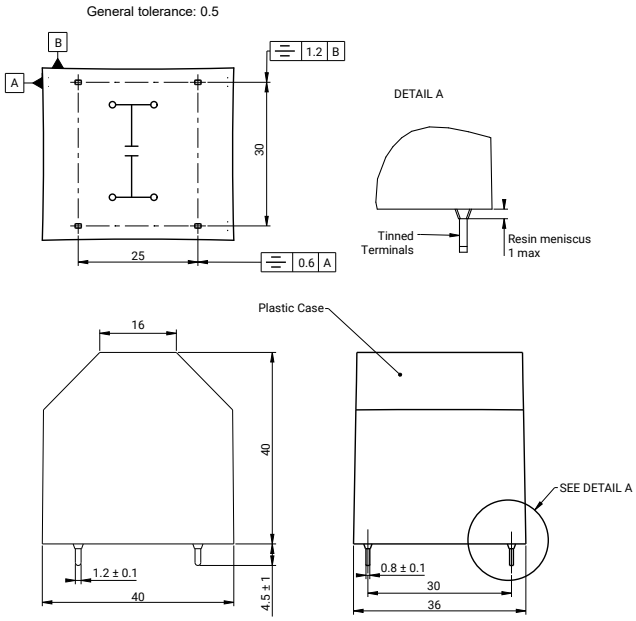
TUNING



DIMENSIONS

Case Size 3



APPLICATIONS

- High Reactive Energy Tuning for Convertors
- Protection of Semi-Conductors

TECHNOLOGY

Metallized polypropylene film and metal foil.

Dry capacitor.

PACKAGING

Rectangular resin case.

4 leads 1.2 x 0.8mm for printed circuit board mounting.

Self-extinguishing plastic case (V0 = in accordance with UL 94) filled thermosetting resin.

Self-extinguishing thermosetting resin (V0 = in accordance with UL 94; I3F2 = in accordance with NF F 16-101).

(Note that FFV3 and FAV3 are in the same packaging.)

STANDARDS

IEC 61071-1: IEC 61071-2: Power electronic capacitors

IEC 60068-1: Environmental testing

IEC 60077: Rules for electric traction equipment

UL 94: Fire requirements

NF F 16-101

NF F 16-102: Fire and smoke requirements

HOT SPOT TEMPERATURE CALCULATION

$\theta_{hot\ spot} = \theta_{ambient} + (P_d + P_t) \times (R_{th} + 7.4)$

with P_d (Dielectric losses) = $Q \times tg\delta_0$

$\Rightarrow [\ ½\ \times C_n \times (V_{peak\ to\ peak})^2 \times fr\ ] \times (2.10^{-4})$

$\Rightarrow$ Protections applications

$\Rightarrow (V^2 \times C \times 2\ \pi\ Fr) \times 2.10^{-4}$

$\Rightarrow$ Tuning applications

Pc (Joule losses) = $R_s \times (I_{rms})^2$

where

Q in Var R_s in Ohm R_{th} in °C/W

HOW TO ORDER

FAV	3	6	K	0125	K	––
Series	**Case Size** Case Size 3	**Dielectric** 6 = Polypropylene	**Voltage Code** K = 600Vdc B = 800Vdc L = 1000Vdc U = 1200Vdc R = 1500Vdc N = 2000Vdc	**Capacitance Code** 0 + pF code 0125 = 1.2µF (1200nF) 0105 = 1.0µF (1000nF) 0154 = 0.15µF (150nF) etc.	**Capacitance Tolerances** K = ±10%	**Terminal Code** – – = Standard

RoHS COMPLIANT

ELECTRICAL CHARACTERISTICS

Climatic category	40/085/56 (IEC 60068)
Working temperature	hot spot temperature: -40°C to +85°C
Hot spot temperature	≤85°C (must be calculated: see below)
Capacitance range C_n	80 to 1200nF
Tolerance	±10%
Rated AC voltage	$V_n$rms = 300 to 650 V
Rated DC voltage	$V_n$dc = 600 to 2000 V
Maximum rms current	Irms max = 10 to 40 Arms
Maximum reactive power	Q max = 7 to 14 kvar
Stray inductance	15 nH
Test voltage between terminals	1.5 x $V_n$dc 10s
Withstanding voltage between terminals and case	3000 V_{rms} 60s
Dielectric	Polypropylene

RATINGS AND PART NUMBER REFERENCE

Part Number	Capacitance (nF)	I rms max (A)	Q max (kV)	Rs (mΩ)	Ls (nH)	Rth (°C/W)	Typical Weight (g)
$V_n$dc 600V Vrms: 300V							
FAV36K0125K--	1200	40	12	0.85	5	4	90
FAV36K0105K--	1000	32	10	1	5	4.1	90
$V_n$dc 800V Vrms: 400V							
FAV36B0804K--	800	35	14	0.9	5	4	90
FAV36B0624K--	620	27	11	1.1	5	4.1	90
$V_n$dc 1000V Vrms: 450V							
FAV36L0564K--	560	30	14	1	5	4	90
FAV36L0474K--	470	25	12	1.2	5	4.1	90
$V_n$dc 1200V Vrms: 500V							
FAV36U0334K--	330	21	11	1.4	5	4.2	90
FAV36U0274K--	270	17	9	1.7	5	4.4	90
$V_n$dc 1500V Vrms: 600V							
FAV36R0184K--	180	16	10	1.7	5	4.4	90
FAV36R0154K--	150	13	8	2	5	4.5	90
$V_n$dc 2000V Vrms: 650V							
FAV36N0124K--	120	15	10	1.7	5	4.6	90
FAV36N0104K--	100	12	8	1.9	5	4.9	90
FAV36N0803K--	80	10	7	2	5	5.2	90

LIFETIME EXPECTANCY