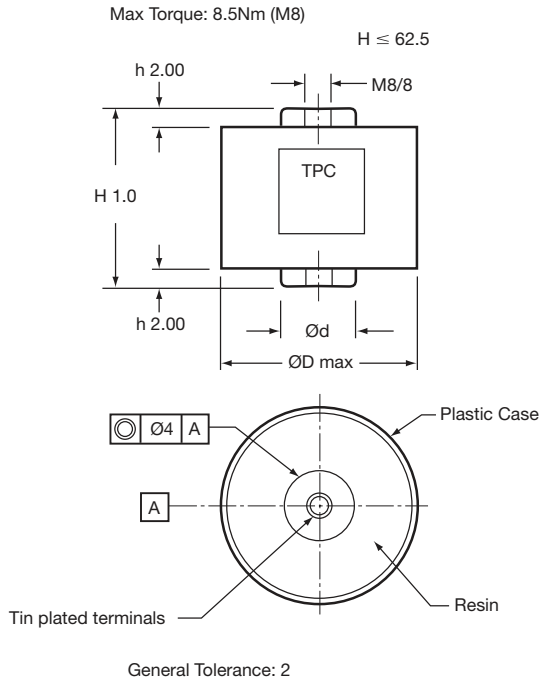
DC FILTERING

DIMENSIONS (CASE SIZES)

plastic case – Terminals: threaded insert M8 filled with thermosetting resin



General Tolerance: 2

GENERAL DESCRIPTION

The FFG series uses a non-impregnated metallized dielectric, which features a controlled self-healing process.

PACKAGING MATERIAL

Self-extinguishing plastic case (V-0 = in accordance with UL 94; certified classifications according toEN 45545-2) filled with thermosetting resin.

Self-extinguishing thermosetting resin (V-0 = in accordance with UL 94; certified classifications according to EN 45545-2).

STANDARDS

IEC 61071-1, IEC 61071-2:	Power electronic capacitors
IEC 60068-1:	Environmental testing
UL 94:	Test for Flammability of Plastic Materials for Parts in Devices and Appliances

HOT SPOT CALCULATION

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

with P_d (Dielectric losses) = $Q \times tg\delta_0$ where $tg\delta_0 = 2 \times 10^{-4}$ and $Q = Irms^2/(C.2.\pi.f)$

P_t (Thermal losses) = $R_s \times I_{rms}^2$

where C_n in Farad, V in Volt, R_{th} in °C/W; I_{rms} in Ampere, R_s in Ohm; f in Hertz, θ in °C

HOW TO ORDER

FFG	8	6	K	0376	K	––
Series FFG = Standard FFH = RoHS Compliant	**Case Size** 8	**Dielectric** 6 = Polypropylene	**Voltage Code** K = 600Vdc B = 800Vdc C = 900Vdc L = 1000Vdc U = 1200Vdc N = 1900Vdc	**Capacitance EIA Code**	**Capacitance Tolerances** K = ±10%	**Voltage Range** – – = < 1kV J7 = ≥ 1kV

Not RoHS Compliant

RoHS COMPLIANT

Please select correct termination style.

ELECTRICAL CHARACTERISTICS

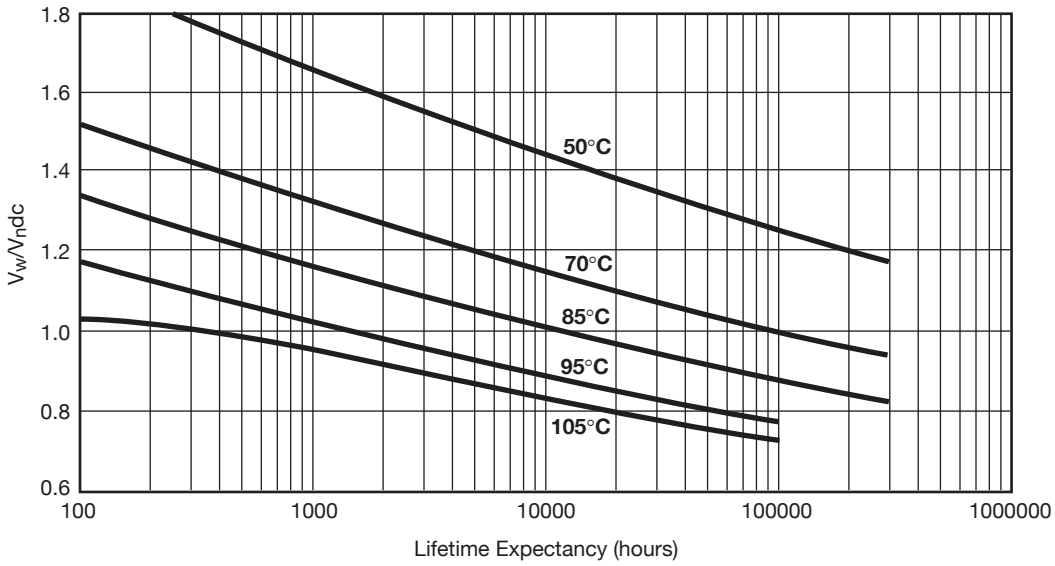
Items	Characteristics
Operating temperature:	–40°C + 105°C
Storage temperature:	–55°C + 85°C
Capacitance range:	16µF to 160µF
Rated DC voltage Vndc:	600 to 900 V
Capacitance tolerance:	±10%
Test voltage between terminals:	@ 25°C: 1.5 x $U_n$dc during 10s
Test voltage between terminals and case:	@ 25°C: @ 4 kVrms @ 50 Hz during 1 mn (test type)
Dielectric:	Polypropylene

RATINGS AND PART NUMBER REFERENCE (600V TO 900V)

Part Number	Cn (µF)	Height ±1 (mm)	h ±2 (mm)	D max (mm)	d ±0.50 (mm)	I^2t max (A^2s)	I_{rms} max (A)	R_s (mΩ)	R_{th} (°C/W)	Typical Weight (g)
Undc 600 V (Voltage Code K)										
FFG86K0376K--	37	52	5	60	22	4	28	1.3	10.1	190
FFG86K0586K--	58	52	5	72	22	10	44	1	6.4	260
FFG86K0806K--	80	52	5	82	22	20	61	0.7	4.9	320
FFG86K0167K--	160	62.5	5	92	22	32	76	0.8	5.8	475
$U_n$dc 800 V (Voltage Code B)										
FFG86B0236K--	23	52	5	60	22	3	26	1.7	10.1	190
FFG86B0376K--	37	52	5	72	22	8	43	1.2	6.5	260
FFG86B0516K--	51	52	5	82	22	15	59	0.9	4.8)	320
FFG86B0107K--	100	62.5	5	92	22	24	73	1	5.9	475
$U_n$dc 900 V (Voltage Code C)										
FFG86C0166K--	16	52	5	60	22	2.8	27	2	9.8	190
FFG86C0266K--	26	52	5	72	22	7	44	1.3	6.5	260
FFG86C0356K--	35	52	5	82	22	13	60	1	4.8	320
FFG86C0706K--	70	62.5	5	92	22	20	75	1.2	5.8	475

Dimensions millimeters

LIFETIME EXPECTANCY vs HOT SPOT TEMPERATURE AND VOLTAGE



Vw = Permanent working or operating DC voltage.

ELECTRICAL CHARACTERISTICS

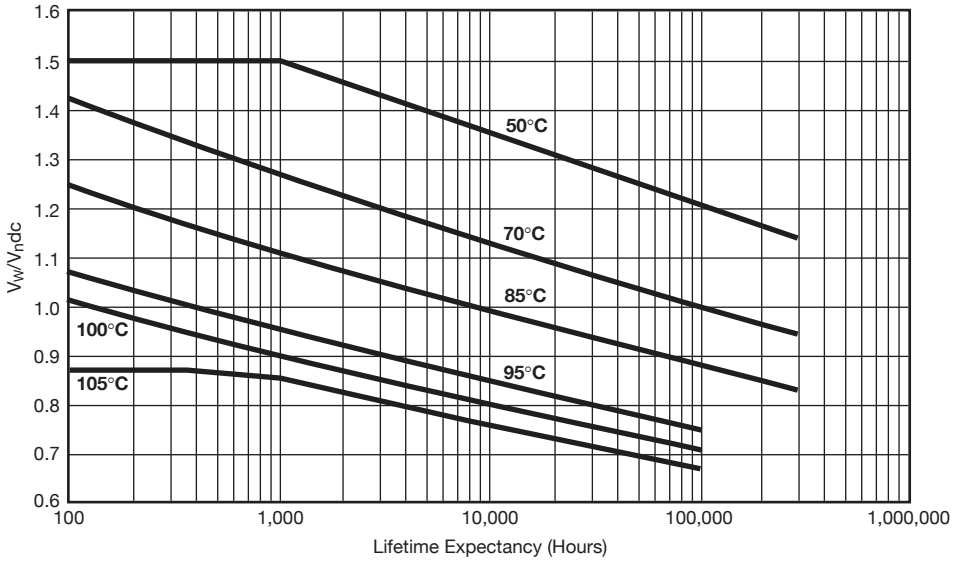
Items	Characteristics
Operating temperature:	−40°C + 105°C
Storage temperature:	−55°C + 85°C
Capacitance range:	5µF to 110µF
Rated DC voltage Vndc:	1000 to 1900 V
Capacitance tolerance:	±10%
Test voltage between terminals:	@ 25°C: 1.5 x $U_n$dc during 10s
Test voltage between terminals and case:	@ 25°C: @ 4 kVrms @ 50 Hz during 1 mn (test type)
Dielectric:	Polypropylene

RATINGS AND PART NUMBER REFERENCE (1000V TO 1900V)

Part Number	Cn (µF)	Height ±1 (mm)	h ±2 (mm)	D max (mm)	d ±0.50 (mm)	I^2t max (A2s)	I_{rms} max (A)	R_s (mΩ)	R_{th} (°C/W)	Typical Weight (g)
$U_n$dc 1000 V (Voltage Code K)										
FFG86L0256KJ7	25	52	5	60	22	1.9	21	3.6	9.9	190
FFG86L0406KJ7	40	52	5	72	22	5	34	2.32	6.4	260
FFG86L0556KJ7	55	52	5	82	22	9.5	46	1.74	4.7	320
FFG86L0117KJ7	110	62.5	5	92	22	14.9	58	1.86	5.7	475
$U_n$dc 1200 V (Voltage Code U)										
FFG86U0176KJ7	17	52	5	60	22	1.3	19	4.33	9.9	190
FFG86U0276KJ7	27	52	5	72	22	3.3	30	2.8	6.5	260
FFG86U0376KJ7	37	52	5	82	22	6.2	41	2.1	4.8	320
FFG86U0766KJ7	76	62.5	5	92	22	10.3	53	2.2	5.6	475
$U_n$dc 1900 V (Voltage Code N)										
FFG86N0505KJ7	5	52	5	60	22	1.7	19	2.77	11.3	190
FFG86N0905KJ7	9	52	5	72	22	5.5	35	1.63	6.6	260
FFG86N0126KJ7	12	52	5	82	22	9.9	46	1.27	5	320
FFG86N0256KJ7	25	62.5	5	92	22	18	63	1.2	5.2	475

Dimensions millimeters

LIFETIME EXPECTANCY vs HOT SPOT TEMPERATURE AND VOLTAGE



Vw = Permanent working or operating DC voltage.