

RT8538A DC-Link Film Capacitor for PCB-Link



► Features

Low ESR, Low LS
High pulse Current, Higher dv/dt endurance

► Application

High performance DC filtering applications

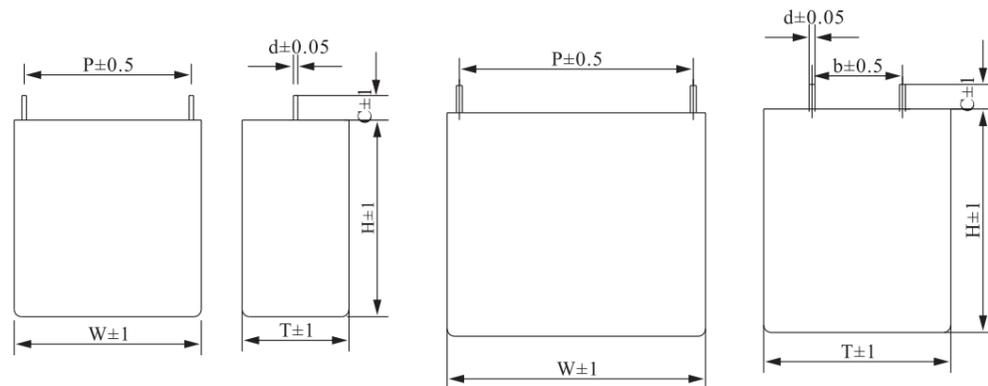
► Technical data

■ Capacitance range	3 μF ~100 μF	■ Overvoltage (The longest duration/day) (30% of on-load-dur) 1.15 U _N : 30 min/day 1.2 U _N : 5 min/day 1.3 U _N : 1 min/day 1.5 U _N : 30 ms every time ,1000times during the life of the capacitor	
■ Rated Voltage	500 V _{DC} (250 V _{AC})~1300 V _{DC} (550 V _{AC})		
■ Capacitance Tolerance	J:±5% , K:±10%		
■ Dissipation factor tgδ	≤0.002(C _N ≤50 μF) (25 °C, 1 KHz) ≤0.003(C _N >50 μF) (25 °C, 1 KHz)		
■ Operating temperature range	-40 °C ~ 85 °C	■ Humidity	95% (T _{Test} =56days)
■ Storage temperature range	-40 °C ~ 105 °C	■ Maximum Altitude	2000 m
■ Voltage Endurance Between Terminals : 1.5 U _N (10 s) Terminals to Case :√2 U _N +1000 V (10 s)		■ Lifetime Expectancy	100 000 h @U _N ; θ _{hotspot} ≤70 °C
		■ Installation	Any position

► Part number system

Model code					Voltage type	Number of phases	Rated voltage			Nominal capacity			Capacitance Tolerance	Lead out mode	Lead pitch	Terminal type
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
R	T	8	5	3	8	A	1	1	2	4	7	7	J	5	1	6
Number 1~5 Model code																
Number 6 Voltage type 8=DC																
Number 7 Number of phases A=One-phase C=Three-phase																
Number 8~10 Rated voltage e.g., 112=11×10 ² V=1100V, 451=45×10 ¹ V=450V																
Number 11~13 Nominal capacity e.g., 477=47×10 ⁷ pF=47×10 ⁴ nF=470 μF																
Number 14 Capacitance Tolerance J=±5%, K=±10%, M=±20%																
Number 15 Lead out mode 1=Copper wire 2=Copper sheet 5=Pin 0= Customization																
Number 16 Lead pitch 1=27.5mm 2=37.5mm 3=52.5mm 0= Customization																
Number 17 Terminal type 6= Pin 0.8mm 7= Pin 1mm 8= Pin 1.2mm 9= Pin2.0mm 0= Customization																

► The contour map



► The contour map

U_N	C_N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dV/dt (V/μs)	ESR @1kHz (mΩ)	I_{max} (A) (70°C)	Part number
500 VDC/ 250 VAC	5	32.0	25.0	15.0	27.5	-	0.8	43	10.4	5	RT8538A501505
	8	32.0	28.0	18.0	27.5	-	0.8	43	9.2	6	RT8538A501805
	10	32.0	38.0	24.0	27.5	-	0.8	43	7.4	7	RT8538A501106
	12	32.0	38.0	24.0	27.5	-	0.8	43	6.3	8	RT8538A501126
	15	32.0	38.0	24.0	27.5	-	0.8	43	4.9	10	RT8538A501156
	20	32.0	38.0	24.0	27.5	-	0.8	43	3.7	12	RT8538A501206
	27	42.0	37.0	28.0	37.5	-	0.8	27	5.8	11	RT8538A501276
	30	42.0	37.0	28.0	37.5	10.0	1.0	27	5.2	12	RT8538A501306
	35	42.0	42.5	28.0	37.5	10.0	1.0	27	4.5	13	RT8538A501356
	40	42.0	42.5	28.0	37.5	10.0	1.0	27	3.9	15	RT8538A501406
	45	42.0	42.5	28.0	37.5	10.0	1.2	27	3.5	16	RT8538A501456
	50	42.0	45.0	30.0	37.5	12.7	1.2	27	3.1	17	RT8538A501506
	55	57.0	45.0	30.0	52.5	20.0	1.2	18	6	14	RT8538A501556
	60	57.0	45.0	30.0	52.5	20.0	1.2	18	5.4	15	RT8538A501606
	70	57.0	45.0	30.0	52.5	20.0	1.2	18	4.6	16	RT8538A501706
	75	57.0	50.0	35.0	52.5	20.0	1.2	18	4.3	17	RT8538A501756
	80	57.0	50.0	35.0	52.5	20.0	1.2	18	4	18	RT8538A501806
100	57.0	50.0	35.0	52.5	20.0	1.2	18	3.2	21	RT8538A501107	
700 VDC/ 300 VAC	5	32.0	25.0	15.0	27.5	-	0.8	75	15.1	6.9	RT8538A701505
	8	32.0	28.0	18.0	27.5	-	0.8	75	11.9	8.3	RT8538A701805
	10	32.0	38.0	24.0	27.5	-	0.8	50	6.4	9.0	RT8538A701106
	12	32.0	38.0	24.0	27.5	-	0.8	50	5.3	10	RT8538A701126
	15	32.0	38.0	24.0	27.5	-	0.8	50	4.3	11	RT8538A701156
	20	42.0	37.0	28.0	37.5	10.0	1.0	31	6.7	10	RT8538A701206
	25	42.0	37.0	28.0	37.5	10.0	1.0	31	5.4	12	RT8538A701256
	30	42.0	42.5	28.0	37.5	12.7	1.0	31	4.5	14	RT8538A701306
	35	42.0	45.0	30.0	37.5	12.7	1.2	31	3.9	15	RT8538A701356
	40	57.0	45.0	30.0	52.5	12.7	1.2	21	6.9	13	RT8538A701406
	45	57.0	45.0	30.0	52.5	12.7	1.2	21	6.1	14	RT8538A701456
	50	57.0	45.0	30.0	52.5	20.0	1.2	21	5.5	15	RT8538A701506
	70	57.0	50.0	35.0	52.5	20.0	1.2	21	5.2	19	RT8538A701706
	80	57.0	50.0	35.0	52.5	20.0	1.2	21	4.9	24	RT8538A701806
	85	57.0	55.0	45.0	52.5	20.0	1.2	21	4.8	25	RT8538A701856
	90	57.0	55.0	45.0	52.5	20.0	1.2	21	4.6	26	RT8538A701906
	95	57.0	55.0	45.0	52.5	20.0	1.2	21	4.4	27	RT8538A701956
100	57.0	55.0	45.0	52.5	20.0	1.2	21	4.2	28	RT8538A701107	

U_N	C_N (μF)	W (mm)	H (mm)	T (mm)	P (mm)	b (mm)	d (mm)	dV/dt (V/ μs)	ESR @1kHz (m Ω)	I_{max} (A) (70°C)	Part number
900 VDC/ 400 VAC	5	32.0	25.0	15.0	27.5	-	0.8	57	11.2	6	RT8538A901505
	8	32.0	38.0	24.0	27.5	-	0.8	57	10.7	12	RT8538A901805
	10	32.0	38.0	24.0	27.5	12.7	0.8	57	5.6	10	RT8538A901106
	12	32.0	38.0	24.0	27.5	12.7	1.0	57	5.5	12	RT8538A901126
	22	42.0	42.5	28.0	37.5	20.0	1.0	36	5.4	14	RT8538A901226
	25	42.0	45.0	30.0	37.5	20.0	1.2	36	4.7	14	RT8538A901256
	27	42.0	45.0	30.0	37.5	20.0	1.2	36	4.4	14	RT8538A901276
	30	57.0	45.0	30.0	52.5	20.0	1.2	24	8.1	12	RT8538A901306
	35	57.0	45.0	30.0	52.5	20.0	1.2	24	6.9	13	RT8538A901356
	45	57.0	50.0	35.0	52.5	20.0	1.2	24	5.4	16	RT8538A901456
	50	57.0	50.0	35.0	52.5	20.0	1.2	24	4.9	17	RT8538A901506
	55	57.0	50.0	35.0	52.5	20.0	1.2	24	4.4	18	RT8538A901556
	60	57.0	55.0	45.0	52.5	20.0	1.2	24	6.1	19	RT8538A901606
65	57.0	55.0	45.0	52.5	20.0	1.2	24	5.6	20	RT8538A901656	
1100 VDC/ 500 VAC	5	32.0	38.0	24.0	27.5	-	0.8	106	7.6	8	RT8538A112505
	8	32.0	38.0	24.0	27.5	-	1.0	106	8.0	8	RT8538A112805
	10	42.0	37.0	28.0	37.5	12.7	1.0	64	8.4	9	RT8538A112106
	12	42.0	42.5	28.0	37.5	12.7	1.0	64	7.0	11	RT8538A112126
	14	42.0	42.5	28.0	37.5	12.7	1.0	64	6.0	12	RT8538A112146
	16	42.0	45.0	30.0	37.5	12.7	1.0	64	5.2	13	RT8538A112166
	20	57.0	45.0	30.0	52.5	20.0	1.2	41	8.9	11	RT8538A112206
	22	57.0	45.0	30.0	52.5	20.0	1.2	41	8.1	12	RT8538A112226
	25	57.0	50.0	35.0	52.5	20.0	1.2	41	7.1	13	RT8538A112256
	30	57.0	50.0	35.0	52.5	20.0	1.2	41	5.9	15	RT8538A112306
	35	57.0	55.0	45.0	52.5	20.0	1.2	20	8.4	14	RT8538A112356
	40	57.0	55.0	45.0	52.5	20.0	1.2	20	7.8	15	RT8538A112406
45	57.0	55.0	45.0	52.5	20.0	1.2	20	6.9	17	RT8538A112456	
1300 VDC/ 550 VAC	3	32.0	28.0	18.0	27.5	-	0.8	128	16.0	5	RT8538A132305
	4	32.0	38.0	24.0	27.5	-	0.8	128	7.1	9	RT8538A132405
	7	42.0	37.0	28.0	37.5	10.0	1.0	77	10.0	9	RT8538A132705
	8	42.0	37.0	28.0	37.5	12.7	1.0	77	8.8	9	RT8538A132805
	11	42.0	45.0	30.0	37.5	12.7	1.2	77	6.4	12	RT8538A132116
	12	57.0	45.0	30.0	52.5	12.7	1.2	50	12.4	9	RT8538A132126
	15	57.0	45.0	30.0	52.5	20.0	1.2	50	9.9	11	RT8538A132156
	20	57.0	50.0	35.0	52.5	20.0	1.2	50	7.5	13	RT8538A132206
	22	57.0	50.0	35.0	52.5	20.0	1.2	50	6.8	14	RT8538A132226
	30	57.0	55.0	45.0	52.5	20.0	1.2	23	6.8	15	RT8538A132306
35	57.0	55.0	45.0	52.5	20.0	1.2	23	6.0	17	RT8538A132356	