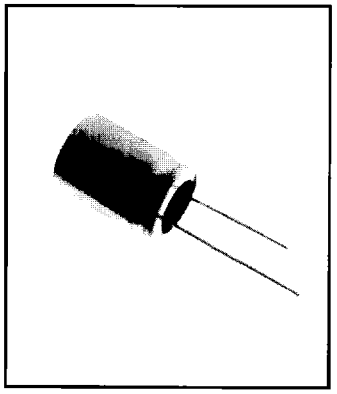
Type VTL
Radial Leaded Capacitors

MALLORY



- 85°C - General Purpose
- 5 to 18 mm Diameters

GENERAL SPECIFICATIONS

Operating Temperature:
-40°C to +85°C

Voltage Range:
6.3 WVDC to 250 WVDC
Over 250 VDC available

Capacitance Range:
.47 μ to 10,000 μF

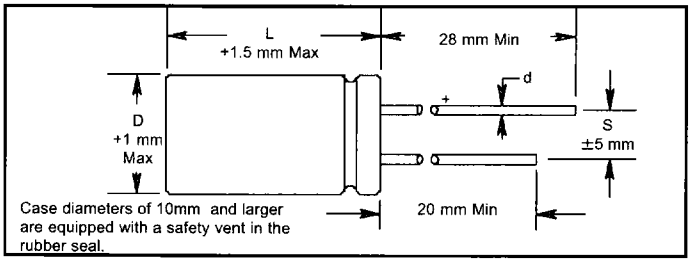
Capacitance Tolerance:
± 20%

DC Leakage Current:
I = .01 CV + 3 mA maximum
C = Capacitance in μF
V = Rated Voltage
I = Leakage Current in mA

QA Stability Test:
Apply WVDC for 2,000 hrs at +85°C
- •Capacitance change ≤20% of initial limits
- •DC Leakage current meets initial limits
- •ESR ≤150% of initial measured value

The maximum ripple current at 85°C and 120 Hz for VTL capacitors is shown in the Standard Rating Table. Maximum ripple current may be adjusted by the multipliers in the following table.

Temperature	Ripple Multipliers				
	60 Hz	120 Hz	400 Hz	1000 Hz	10kHz Up
85°C	0.8	1.0	1.1	1.35	1.5
75°C	1.1	1.4	1.55	1.9	2.1
65°C	1.2	1.6	1.75	2.1	2.4
45°C	1.5	1.9	2.1	2.5	2.8
25°C	1.8	2.25	2.5	3.0	3.3



Cap μF	Max ESR Ohms 120Hz 25°C	Max Ripple mA 120Hz 85°C	Size (Inches) D x L	S	Size (mm) D x L	S	d	Catalog Number
6.3 WVDC; 8 VDC Surge								
33	8.84	70	.197X.433	.079	5X11	2.0	.5	VTL33S6
47	6.21	90	.197X.433	.079	5X11	2.0	.5	VTL47S6
100	2.92	140	.236X.433	.098	6X11	2.5	.5	VTL100S6
220	1.33	240	.315X.472	.138	8X12	3.5	.5	VTL220S6
330	.88	310	.394X.512	.197	10X13	5.0	.6	VTL330S6
470	.62	380	.394X.512	.197	10X13	5.0	.6	VTL470S6
1000	.29	600	.394X.630	.197	10X16	5.0	.6	VTL1000S6
2200	.14	920	.512X.827	.197	13X21	5.0	.6	VTL2200S6
3300	.10	1100	.512X.827	.295	13X21	7.5	.8	VTL3300S6
4700	.08	1400	.512X1.023	.295	13X26	7.5	.8	VTL4700S6
6800	.06	1600	.630X1.260	.295	16X32	7.5	.8	VTL6800S6
10,000	.05	2000	.709X1.457	.295	18X37	1.5	.8	VTL10000S6
10 WVDC; 13 VDC Surge								
22	11.45	55	.197X.433	.078	5X11	2.0	.5	VTL22S10
33	7.64	70	.197X.433	.078	5X11	2.0	.5	VTL33S10
47	5.36	90	.197X.433	.078	5X11	2.0	.5	VTL47S10
100	2.52	150	.236X.433	.098	6X11	2.5	.5	VTL100S10
220	1.15	260	.315X.472	.138	8X12	3.5	.6	VTL220S10
330	.76	340	.394X.472	.197	10X12	5.0	.6	VTL330S10
470	.54	430	.394X.512	.197	10X13	5.0	.6	VTL470S10
1000	.26	700	.394X.630	.197	10X16	5.0	.6	VTL1000S10
2200	.13	1050	.512X.826	.197	13X21	5.0	.6	VTL2200S10
3300	.09	1350	.630X1.220	.295	16X31	7.5	.8	VTL3300S10
4700	.07	1600	.630X1.063	.295	16X27	7.5	.8	VTL4700S10
6800	.06	2000	.630X1.418	.295	16X36	7.5	.8	VTL6800S10
16 WVDC; 20 VDC Surge								
10	21.22	40	.197	.433	.079	5X11	2.0	.5	VTL10S16
22	9.65	70	.197X.433	.079	5X11	2.0	.5	VTL22S16
33	6.43	85	.197X.433	.079	5X11	2.0	.5	VTL33S16
47	4.52	110	.236X.433	.098	6X11	2.5	.5	VTL47S16
68	3.12	160	.315X.472	.138	8X12	3.5	.5	VTL68S16
100	2.12	190	.315X.472	.138	8X12	3.5	.5	VTL100S16A
220	.97	320	.394X.512	.197	10X13	5.0	.6	VTL220S16A
330	.64	410	.394X.512	.197	10X13	5.0	.6	VTL330S16A
470	.45	520	.394X.512	.197	10X13	5.0	.6	VTL470S16A

Cap μF	Max ESR Ohms 120Hz 25°C	Max Ripple mA 120Hz 85°C	Size (Inches) D x L	S	Size (mm) D x L	S	d	Catalog Number
16 WVDC; 20 VDC Surge								
1000	.21	800	.394X.787	.197	10X20	5.0	.6	VTL1000S16
1000	.21	800	.512X.787	.295	13X20	7.5	.6	VTL1000S16A
2200	.11	1200	.512X1.024	.295	13X26	7.5	.8	VTL2200S16
3300	.08	1500	.630X1.062	.295	16X27	7.5	.8	VTL3300S16
4700	.06	1800	.630X1.497	.295	16X38	7.5	.8	VTL4700S16
25 WVDC; 32 VDC Surge								
4.7	39.51	30	.197X.433	.079	5X11	2.0	.5	VTL4R7S25
22	8.44	90	.197X.433	.079	5X11	2.0	.5	VTL22S25
33	5.63	115	.236X.433	.098	6X11	2.5	.5	VTL33S25
47	3.95	150	.236X.433	.098	6X11	2.5	.5	VTL47S25
68	2.73	200	.315X.472	.138	8X12	3.5	.5	VTL68S25
100	1.86	250	.315X.472	.138	8X12	3.5	.5	VTL100S25
220	.84	430	.315X.512	.197	8X13	5.0	.6	VTL220S25
330	.56	560	.394X.630	.197	10X16	5.0	.6	VTL330S25
470	.40	720	.394X.630	.197	10X16	5.0	.6	VTL470S25
1000	.19	1100	.512X.827	.295	13X21	7.5	.8	VTL1000S25
2200	.10	1500	.630X1.220	.295	16X31	7.5	.8	VTL2200S25
3300	.07	1800	.709X1.338	.295	18X34	7.5	.8	VTL3300S25
35 WVDC; 44 VDC Surge								
4.7	33.88	30	.197X.433	.079	5X11	2.0	.5	VTL4R7S35
10	15.92	50	.197X.433	.079	5X11	2.0	.5	VTL10S35
22	7.24	100	.236X.433	.098	6X11	2.5	.5	VTL22S35
33	4.83	130	.236X.433	.098	6X11	2.5	.5	VTL33S35
47	3.39	170	.236X.433	.098	6X11	2.5	.5	VTL47S35
100	1.59	300	.394X.512	.197	10X13	5.0	.6	VTL100S35
220	.72	480	.394X.630	.197	10X16	5.0	.6	VTL220S35
330	.48	610	.394X.787	.197	10X20	5.0	.6	VTL330S35
470	.34	750	.512X.827	.197	13X21	5.0	.6	VTL470S35
1000	.16	1200	.512X1.024	.295	13X26	7.5	.8	VTL1000S35
2200	.08	1800	.709X1.339	.295	18X34	7.5	.8	VTL2200S35

Aluminum Capacitors

North American Capacitor Company/P.O. Box 1284/Indianapolis IN 46206-1284/Phone: (317)273-0090/Fax: (317)273-2400

Type VTL
Radial Leaded Capacitors

MALLORY

Cap µF	Max ESR Ohms 120Hz 25 C	Max Ripple mA 120Hz 85 C	Size (inches) D x L	S	Size (mm) D x L	S	d	Catalog Number
50 WVDC; 63 VDC Surge								
.47	282.33	7	.197X.433	.079	5X11	2.0	.5	VTLR47S50
1	132.70	12	.197X.433	.079	5X11	2.0	.5	VTL1S50
2.2	60.32	21	.197X.433	.079	5X11	2.0	.5	VTL2R2S50
3.3	40.21	28	.197X.433	.079	5X11	2.0	.5	VTL3R3S50
4.7	28.23	35	.197X.433	.079	5X11	2.0	.5	VTL4R7S50
10	13.27	60	.197X.433	.079	5X11	2.0	.5	VTL10S50
22	6.03	110	.236X.433	.098	6X11	2.5	.5	VTL22S50
33	4.02	150	.315X.472	.138	8X12	3.5	.5	VTL33S50
47	2.82	190	.315X.472	.138	8X12	3.5	.5	VTL47S50
100	1.33	330	.394X.512	.197	10X13	5.0	.6	VTL100S50
220	.60	540	.394X1.024	.197	10X26	5.0	.6	VTL220S50
330	.40	650	.512X.787	.197	13X20	5.0	.6	VTL330S50
470	.28	800	.512X.984	.295	13X25	7.5	.8	VTL470S50
1000	.13	1250	.630X1.220	.295	16X31	7.5	.8	VTL1000S50
63 WVDC; 80 VDC Surge								
4.7	28.33	35	.197X.433	.079	5X11	2.0	.5	VTL4R7S63
10	13.27	65	.236X.433	.098	6X11	2.5	.5	VTL10S63
22	6.03	120	.315X.472	.138	8X12	3.5	.5	VTL22S63
33	4.02	165	.315X.472	.138	8X12	3.5	.5	VTL33S63
47	2.82	210	.394X.512	.197	10X13	5.0	.5	VTL47S63
100	1.33	340	.394X.630	.197	10X16	5.0	.5	VTL100S63
220	.60	580	.512X.787	.197	13X20	5.0	.5	VTL220S63
330	.40	760	.512X1.181	.197	13X30	5.0	.5	VTL330S63
470	.28	900	.630X1.026	.295	16X26	7.5	.8	VTL470S63
1000	.13	1400	.630X1.496	.295	16X38	7.5	.8	VTL1000S63
100 WVDC; 125 VDC Surge								
.47	225.87	8	.197X.433	.079	5X11	2.0	.5	VTLR47S100
1	106.16	15	.197X.433	.079	5X11	2.0	.5	VTL1S100
2.2	48.25	25	.197X.433	.079	5X11	2.0	.5	VTL2R2S100
3.3	32.17	35	.197X.433	.079	5X11	2.0	.5	VTL3R3S100
4.7	22.59	45	.236X.433	.098	6X11	2.5	.5	VTL4R7S100
10	10.62	80	.315X.472	.138	8X12	3.5	.5	VTL10S100
22	4.83	140	.394X.512	.197	10X13	5.0	.6	VTL22S100
33	3.22	195	.394X.630	.197	10X16	5.0	.6	VTL33S100
47	2.26	250	.394X.787	.197	10X20	5.0	.6	VTL47S100
100	1.06	420	.512X.787	.197	13X20	5.0	.6	VTL100S100
220	.48	700	.512X1.220	.295	13X31	7.5	.8	VTL220S100
330	.32	900	.630X1.220	.295	16X31	7.5	.8	VTL330S100
470	.23	1100	.630X1.496	.295	16X38	7.5	.8	VTL470S100

Cap µF	Max ESR Ohms 120Hz 25 C	Max Ripple mA 120Hz 85 C	Size (inches) D x L	S	Size (mm) D x L	S	d	Catalog Number
160 WVDC; 185 VDC Surge								
4.7	31.35	37	.315X.472	.138	8X12	3.5	.5	VTL4R7S160
10	14.74	70	.394X.630	.197	10X16	5.0	.6	VTL10S160
22	6.98	126	.394X.827	.197	10X21	5.0	.6	VTL22S160
33	4.47	165	.512X.787	.197	13X20	5.0	.6	VTL33S160
47	3.14	230	.512X1.024	.295	13X26	7.5	.8	VTL47S160
100	1.47	386	.630X.984	.295	16X25	7.5	.8	VTL100S160
220	.67	748	.709X1.417	.295	18X36	7.5	.8	VTL220S160
330	.45	1022	.866X1.378	.394	22X35	10.0	1.0	VTL330S160
200 WVDC; 250 VDC Surge								
3.3	44.67	36	.315X.472	.138	8X12	3.5	.5	VTL3R3S200
4.7	31.35	49	.394X.512	.197	10X13	5.0	.6	VTL4R7S200
10	14.74	79	.394X.630	.197	10X16	5.0	.6	VTL10S200
22	6.69	137	.394X1.025	.197	10X26	5.0	.6	VTL22S200
33	4.46	184	.512X1.025	.197	13X26	5.0	.6	VTL33S200
47	3.14	234	.512X1.181	.197	13X30	5.0	.6	VTL47S200
100	1.47	450	.630X1.417	.295	16X36	7.5	.8	VTL100S200
150	.98	614	.709X1.417	.295	18X36	7.5	.8	VTL150S200
220	.67	856	.709X1.575	.295	18X40	7.4	.8	VTL220S200
250 WVDC; 300 VDC Surge								
1	294.70	16	.236X.472	.098	6X12	2.5	.5	VTL1S250
2.2	134.00	24	.315X.472	.138	8X12	3.5	.5	VTL2R2S250
3.3	89.31	33	.394X.512	.197	10X13	5.0	.6	VTL3R3S250
4.7	62.71	40	.394X.512	.197	10X13	5.0	.6	VTL4R7S250
10	29.47	64	.394X.827	.197	10X21	5.0	.6	VTL10S250
22	13.40	123	.512X1.025	.197	13X26	5.0	.6	VTL22S250
33	8.93	160	.512X1.025	.197	13X26	5.0	.6	VTL33S250
47	6.27	219	.630X.984	.295	16X25	7.5	.8	VTL47S250
100	2.95	389	.709X1.417	.295	18X36	7.5	.8	VTL100S250