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Aluminum Capacitors
+85 °C, Powerlytic® Electrolytics



FEATURES

Pb-free Available

- Designed for applications requiring greatest possible capacitance in small physical case sizes
- Supplement original Type 36D can-type capacitors, offering lower capacitance values in smaller sizes with axial leads
- Welds at all critical anode and cathode terminals eliminate riveted or pressure connections to assure freedom from open circuits even when operated in the microvolt or millivolt signal range
- Improved molded phenolic and seals
- Pressure-sensitive safety vent
- Service life of 10 years or more in normal circuit applications
- Capacitors listed have outer plastic-film insulation. For bare case, change last character of part number from 6 to 0 and subtract 0.062" [1.575 mm] from diameter and 0.125" [3.175 mm] from length
- Axial lead
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

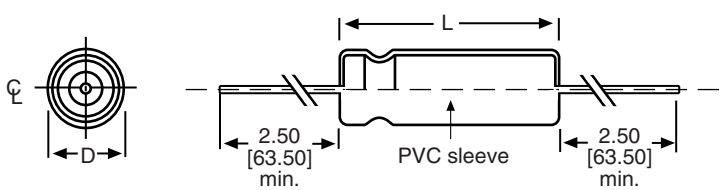
QUICK REFERENCE DATA

DESCRIPTION	VALUE
Operating temperature	-20 °C to +85 °C
Tolerance on C_R: 3 WV_{DC} to 75 WV_{DC} 100 WV_{DC} to 450 WV_{DC}	 +75 %, -10 % +50 %, -10 %
Dissipation Factor: 3 WV_{DC} and 6 WV_{DC} 10 WV_{DC} and 15 WV_{DC} 25 WV_{DC} and 30 WV_{DC} 40 WV_{DC} and 50 WV_{DC} 75 WV_{DC} and 100 WV_{DC} 150 WV_{DC} to 450 WV_{DC}	 230 % 150 % 60 % 45 % 30 % 18 %
Ripple current	20 to 3140 maximum amperes rms at 120 Hz and +120 °C, depending upon capacitance
Useful life at 85 °C	500 h
DC leakage current (after 5 min charge)	$I = k\sqrt{CV}$ k = 6.0 at +25 °C; k = 36.0 at +85 °C I in µA, C in µF, V in Volts

DIMENSIONS in inches [millimeters]

CASE CODE	D ± 0.020 [0.51]	L ± 0.062 [1.58]	CASE CODE	D ± 0.020 [0.51]	L ± 0.062 [1.58]	CASE CODE	D ± 0.020 [0.51]	L ± 0.062 [1.58]
EE	0.510 [13.0]	1.141 [29.0]	GJ	0.760 [19.3]	1.641 [41.7]	JE	1.010 [25.7]	1.141 [29.0]
EJ	0.510 [13.0]	1.641 [41.7]	GL	0.760 [19.3]	2.141 [54.4]	JJ	1.010 [25.7]	1.641 [41.7]
EL	0.510 [13.0]	2.141 [54.4]	GP	0.760 [19.3]	2.641 [67.1]	JL	1.010 [25.7]	2.141 [54.4]
FE	0.635 [16.1]	1.141 [29.0]	HE	0.885 [22.5]	1.141 [29.0]	JP	1.010 [25.7]	2.641 [67.1]
FJ	0.635 [16.1]	1.641 [41.7]	HJ	0.885 [22.5]	1.641 [41.7]	JS	1.010 [25.7]	3.141 [79.8]
FL	0.635 [16.1]	2.141 [54.4]	HL	0.885 [22.5]	2.141 [54.4]	JT	1.010 [25.7]	3.641 [92.5]
FP	0.635 [16.1]	2.641 [67.1]	HP	0.885 [22.5]	2.641 [67.1]	-	-	-
GE	0.760 [19.3]	1.141 [29.0]	HS	0.885 [22.5]	3.141 [79.8]	-	-	-

DIMENSIONS AND AVAILABLE FORMS



Tinned copper leads
No. 20 AWG (0.032" [0.813] Dia.) for D = 0.510" [13.0] and D = 0.635" [16.1]
No. 18 AWG (0.040" [1.016] Dia.) for D = 0.760" [19.3] and up

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ORDERING EXAMPLE

Electrolytic capacitor 39D series: 39D 907 G 003 EJ 6

DESCRIPTION	
CODE	**EXPLANATION**
39D	Product type
907	Capacitance value (900 µF)
G	Tolerance (G = -10 %/+75 %; F = -10 %/+50 %)
003	Voltage rating at 85 °C (003 = 3 V)
EJ	Can size (See dimensions table)
6	Sleeve and sealing (6 = P.V.C. sleeve)

Note

- For lead (Pb)-free/RoHS compliant products add suffix “E3” to part number.
  Example: 39D907G003EJ6E3

ELECTRICAL DATA AND ORDERING INFORMATION		
CAPACITANCE (µF)	**CASE CODE**	**PART NUMBER**
3 WV_{DC} AT +85 °C, SURGE = 4 V		
400	EE	39D407G003EE6
900	EJ	39D907G003EJ6
1300	EL	39D138G003EL6
1400	GE	39D148G003GE6
1800	FJ	39D188G003FJ6
2100	HE	39D218G003HE6
2700	FL	39D278G003FL6
2900	GJ	39D298G003GJ6
3000	JE	39D308G003JE6
3600	FP	39D368G003FP6
4200	HJ	39D428G003HJ6
4300	GL	39D438G003GL6
5700	GP	39D578G003GP6
6000	JJ	39D608G003JJ6
8500	HP	39D858G003HP6
9000	JL	39D908G003JL6
10 000	HS	39D109G003HS6
12 000	JP	39D129G003JP6
15 000	JS	39D159G003JS6
18 000	JT	39D189G003JT6
6 WV_{DC} AT +85 °C, SURGE = 8 V		
300	EE	39D307G006EE6
600	EJ	39D607G006EJ6
900	EL	39D907G006EL6
1000	GE	39D108G006GE6
1200	FJ	39D128G006FJ6
1500	HE	39D158G006HE6
1900	FL	39D198G006FL6
2000	GJ	39D208G006GJ6
2100	JE	39D218G006JE6
2500	FP	39D258G006FP6
3000	GL	39D308G006GL6
4000	GP	39D408G006GP6
4200	JJ	39D428G006JJ6
6000	HP	39D608G006HP6
6300	JL	39D638G006JL6
7500	HS	39D758G006HS6
8500	JP	39D858G006JP6
10 000	JS	39D109G006JS6
12 000	JT	39D129G006JT6

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CAPACITANCE (µF)	CASE CODE	PART NUMBER
10 WV_{DC} AT +85 °C, SURGE = 12 V		
250	EE	39D257G010EE6
500	EJ	39D507G010EJ6
800	EL	39D807G010EL6
850	GE	39D857G010GE6
1000	FJ	39D108G010FJ6
1200	HE	39D128G010HE6
1600	FL	39D168G010FL6
1700	GJ	39D178G010GJ6
2100	FP	39D218G010FP6
2500	GL	39D258G010GL6
3400	GP	39D348G010GP6
3500	JJ	39D358G010JJ6
5000	HP	39D508G010HP6
5200	JL	39D528G010JL6
6300	HS	39D638G010HS6
7100	JP	39D718G010JP6
8800	JS	39D888G010JS6
10 000	JT	39D109G010JT6
15 WV_{DC} AT +85 °C, SURGE = 18 V		
200	EE	39D207G015EE6
400	EJ	39D407G015EJ6
600	EL	39D607G015EL6
800	FJ	39D807G015FJ6
950	HE	39D957G015HE6
1200	FL	39D128G015FL6
1300	GJ	39D138G015GJ6
1600	FP	39D168G015FP6
1900	GL	39D198G015GL6
2500	GP	39D258G015GP6
2600	JJ	39D268G015JJ6
3800	HP	39D388G015HP6
4000	JL	39D408G015JL6
4700	HS	39D478G015HS6
5300	JP	39D538G015JP6
6600	JS	39D668G015JS6
8000	JT	39D808G015JT6
25 WV_{DC} AT +85 °C, SURGE = 30 V		
100	EE	39D107G025EE6
200	EJ	39D207G025EJ6
350	EL	39D357G025EL6
450	FJ	39D457G025FJ6
500	HE	39D507G025HE6
700	FL	39D707G025FL6
750	GJ	39D757G025GJ6
800	JE	39D807G025JE6
950	FP	39D957G025FP6
1000	GL	39D108G025GL6
1100	HJ	39D118G025HJ6
1500	GP	39D158G025GP6
1600	JJ	39D168G025JJ6
1700	HL	39D178G025HL6
2200	HP	39D228G025HP6
2400	JL	39D248G025JL6
2800	HS	39D288G025HS6
3200	JP	39D328G025JP6
4000	JS	39D408G025JS6
4700	JT	39D478G025JT6

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CAPACITANCE (µF)	CASE CODE	PART NUMBER
30 WV_{DC} AT +85 °C, SURGE = 40 V		
75	EE	39D756G030EE6
150	EJ	39D157G030EJ6
250	EL	39D257G030EL6
350	FJ	39D357G030FJ6
400	HE	39D407G030HE6
500	FL	39D507G030FL6
600	JE	39D607G030JE6
700	FP	39D707G030FP6
850	GL	39D857G030GL6
1100	GP	39D118G030GP6
1200	HL	39D128G030HL6
1700	HP	39D178G030HP6
1800	JL	39D188G030JL6
2100	HS	39D218G030HS6
2400	JP	39D248G030JP6
3000	JS	39D308G030JS6
3600	JT	39D368G030JT6
40 WV_{DC} AT +85 °C, SURGE = 50 V		
75	EE	39D756G040EE6
150	EJ	39D157G040EJ6
200	EL	39D207G040EL6
250	GE	39D257G040GE6
300	FJ	39D307G040FJ6
350	HE	39D357G040HE6
450	FL	39D457G040FL6
500	GJ	39D507G040GJ6
600	FP	39D607G040FP6
750	GL	39D757G040GL6
1000	GP	39D108G040GP6
1100	HL	39D118G040HL6
1500	HP	39D158G040HP6
1600	JL	39D168G040JL6
1900	HS	39D198G040HS6
2100	JP	39D218G040JP6
2600	JS	39D268G040JS6
3200	JT	39D328G040JT6
50 WV_{DC} AT +85 °C, SURGE = 65 V		
50	EE	39D506G050EE6
100	EJ	39D107G050EJ6
150	EL	39D157G050EL6
200	FJ	39D207G050FJ6
250	HE	39D257G050HE6
350	FL	39D357G050FL6
450	FP	39D457G050FP6
500	GL	39D507G050GL6
700	GP	39D707G050GP6
750	JJ	39D757G050JJ6
800	HL	39D807G050HL6
1100	HP	39D118G050HP6
1300	HS	39D138G050HS6
1500	JP	39D158G050JP6
1900	JS	39D198G050JS6
2300	JT	39D238G050JT6

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CAPACITANCE (µF)	CASE CODE	PART NUMBER
75 WV_{DC} AT +85 °C, SURGE = 95 V		
30	EE	39D306G075EE6
75	EJ	39D756G075EJ6
100	EL	39D107G075EL6
150	FJ	39D157G075FJ6
200	FL	39D207G075FL6
250	JE	39D257G075JE6
300	FP	39D307G075FP6
350	GL	39D357G075GL6
450	GP	39D457G075GP6
500	HL	39D507G075HL6
700	HP	39D707G075HP6
750	JL	39D757G075JL6
850	HS	39D857G075HS6
1000	JP	39D108G075JP6
1200	JS	39D128G075JS6
1500	JT	39D158G075JT6
100 WV_{DC} AT +85 °C, SURGE = 125 V		
15	EE	39D156F100EE6
35	EJ	39D356F100EJ6
55	EL	39D556F100EL6
60	GE	39D606F100GE6
75	FJ	39D756F100FJ6
90	HE	39D906F100HE6
110	FL	39D117F100FL6
120	GJ	39D127F100GJ6
130	JE	39D137F100JE6
150	FP	39D157F100FP6
180	HJ	39D187F100HJ6
190	GL	39D197F100GL6
250	GP	39D257F100GP6
260	JJ	39D267F100JJ6
280	HL	39D287F100HL6
370	HP	39D377F100HP6
390	JL	39D397F100JL6
460	HS	39D467F100HS6
520	JP	39D527F100JP6
650	JS	39D657F100JS6
780	JT	39D787F100JT6
150 WV_{DC} AT +85 °C, SURGE = 175 V		
10	EE	39D106F150EE6
25	EJ	39D256F150EJ6
40	EL	39D406F150EL6
50	FJ	39D506F150FJ6
60	HE	39D606F150HE6
80	FL	39D806F150FL6
85	GJ	39D856F150GJ6
88	JE	39D886F150JE6
100	FP	39D107F150FP6
120	GL	39D127F150GL6
170	GP	39D177F150GP6
190	HL	39D197F150HL6
250	HP	39D257F150HP6
260	JL	39D267F150JL6
310	HS	39D317F150HS6
350	JP	39D357F150JP6
440	JS	39D447F150JS6
530	JT	39D537F150JT4

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CAPACITANCE (µF)	CASE CODE	PART NUMBER
200 WV_{DC} AT +85 °C, SURGE = 250 V		
9	EE	39D905F200EE6
15	EJ	39D156F200EJ6
25	EL	39D256F200EL6
30	GE	39D306F200GE6
35	FJ	39D356F200FJ6
40	HE	39D406F200HE6
55	FL	39D556F200FL6
60	GJ	39D606F200GJ6
75	FP	39D756F200FP6
80	HJ	39D806F200HJ6
90	GL	39D906F200GL6
120	GP	39D127F200GP6
130	HL	39D137F200HL6
170	HP	39D177F200HP6
180	JL	39D187F200JL6
220	HS	39D227F200HS6
250	JP	39D257F200JP6
310	JS	39D317F200JS6
370	JT	39D377F200JT6
250 WV_{DC} AT +85 °C, SURGE = 300 V		
7	EE	39D705F250EE6
15	EJ	39D156F250EJ6
20	EL	39D206F250EL6
30	FJ	39D306F250FJ6
35	HE	39D356F250HE6
45	FL	39D456F250FL6
50	JE	39D506F250JE6
60	FP	39D606F250FP6
70	GL	39D706F250GL6
95	GP	39D956F250GP6
100	HL	39D107F250HL6
140	HP	39D147F250HP6
150	JL	39D157F250JL6
180	HS	39D187F250HS6
200	JP	39D207F250JP6
250	JS	39D257F250JS6
300	JT	39D307F250JT6
300 WV_{DC} AT +85 °C, SURGE = 350 V		
5	EE	39D505F300EE6
10	EJ	39D106F300EJ6
15	EL	39D156F300EL6
20	FJ	39D206F300FJ6
25	HE	39D256F300HE6
30	FL	39D306F300FL6
40	FP	39D406F300FP6
50	GL	39D506F300GL6
65	GP	39D656F300GP6
75	HL	39D756F300HL6
100	HP	39D107F300HP6
120	HS	39D127F300HS6
130	JP	39D137F300JP6
170	JS	39D177F300JS6
200	JT	39D207F300JT6

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CAPACITANCE (µF)	CASE CODE	PART NUMBER
350 WV_{DC} AT +85 °C, SURGE = 400 V		
4	EE	39D405F350EE6
8	EJ	39D805F350EJ6
12	EL	39D126F350EL6
15	FJ	39D156F350FJ6
20	FL	39D206F350FL6
25	GJ	39D256F350GJ6
30	FP	39D306F350FP6
40	GL	39D406F350GL6
50	GP	39D506F350GP6
60	HL	39D606F350HL6
80	HP	39D806F350HP6
100	HS	39D107F350HS6
110	JP	39D117F350JP6
130	JS	39D137F350JS6
160	JT	39D167F350JT6
400 WV_{DC} AT +85 °C, SURGE = 475 V		
2	EE	39D205F400EE6
5	EJ	39D505F400EJ6
10	FJ	39D106F400FJ6
15	F	39D156F400FL6
20	F	39D206F400FP6
25	GL	39D256F400GL6
35	GP	39D356F400GP6
40	HL	39D406F400HL6
55	HP	39D556F400HP6
65	HS	39D656F400HS6
75	JP	39D756F400JP6
90	JS	39D906F400JS6
110	JT	39D117F400JT6
450 WV_{DC} AT +85 °C, SURGE = 525 V		
1	EE	39D105F450EE6
3	EJ	39D305F450EJ6
5	EL	39D505F450EL6
10	FL	39D106F450FL6
15	FP	39D156F450FP6
20	GL	39D206F450GL6
25	GP	39D256F450GP6
35	HP	39D356F450HP6
45	HS	39D456F450HS6
50	JP	39D506F450JP6
65	JS	39D656F450JS6
75	JT	39D756F450JT6

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