

Aluminum Capacitors +85 °C, Powerlytic™ Electrolytics



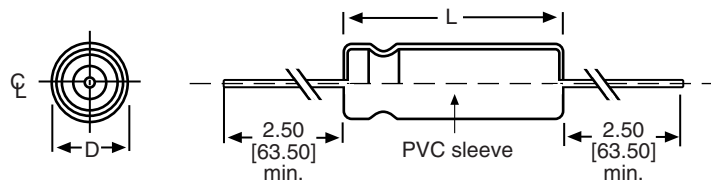
| QUICK REFERENCE DATA | |
|---|---|
| DESCRIPTION | VALUE |
| Operating temperature | -20 °C to +85 °C |
| Tolerance on C_R : 3 WV _{DC} to 75 WV _{DC} 100 WV _{DC} to 450 WV _{DC} | +75 %, -10 % +50 %, -10 % |
| Dissipation Factor: 3 WV _{DC} and 6 WV _{DC} 10 WV _{DC} and 15 WV _{DC} 25 WV _{DC} and 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 +85 °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 μ A, C in μ F, V in Volts |

FEATURES

- 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

| DIMENSIONS in inches [millimeters] | | | | | | | | |
|------------------------------------|--------------------|--------------------|-----------|--------------------|--------------------|-----------|--------------------|--------------------|
| CASE CODE | D | L | CASE CODE | D | L | CASE CODE | D | L |
| | ± 0.020 [0.51] | ± 0.062 [1.58] | | ± 0.020 [0.51] | ± 0.062 [1.58] | | ± 0.020 [0.51] | ± 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



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 |



| ELECTRICAL DATA AND ORDERING INFORMATION | | |
|---|------------------|--------------------|
| 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 |



| ELECTRICAL DATA AND ORDERING INFORMATION | | |
|---|------------------|--------------------|
| 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 |



| ELECTRICAL DATA AND ORDERING INFORMATION | | |
|---|------------------|--------------------|
| 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 |



| ELECTRICAL DATA AND ORDERING INFORMATION | | |
|---|------------------|--------------------|
| 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 |



| ELECTRICAL DATA AND ORDERING INFORMATION | | |
|---|------------------|--------------------|
| 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 |

Statements about product lifetime are based on calculations and internal testing. They should only be interpreted as estimations. Also due to external factors, the lifetime in the field application may deviate from the calculated lifetime. In general, nothing stated herein shall be construed as a guarantee of durability.



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