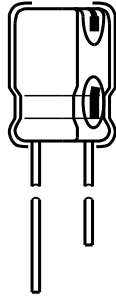


## Aluminum Capacitors +105 °C, Miniature, Radial Lead


**FEATURES**

- Broad operating range
- Low DC leakage current and dissipation factor
- Suitable for solid tantalum replacement applications
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case size, Ø D x L in mm	0.236" x 0.433" [6.0 x 11.0] to 0.394" x 0.787" [10.0 x 20.0] (nominal)
Operating temperature	-40 °C to +105 °C
Rated capacitance range, C <sub>R</sub>	1.0 µF to 330 µF
Tolerance on C <sub>R</sub>	± 20 %
Rated voltage range, U <sub>R</sub>	6.3 WV <sub>DC</sub> to 63 WV <sub>DC</sub>
Termination	Radial leads
Life validation test at 105 °C	2000 h: ΔCAP ≤ 15 % (6.3 WV <sub>DC</sub> to 10 WV <sub>DC</sub> ), ≤ 10 % (16 WV <sub>DC</sub> to 63 WV <sub>DC</sub> ) from initial measurement. ΔDF ≤ 1.25 x initial specified limit. ΔDCL ≤ initial specified limit.
DC leakage current (after 2 min charge)	I = 0.01 CV I in µA, C in µF, V in Volts

DIMENSIONS in inches [millimeters]						
CASE CODE	D (MAX.)	H (MAX.)	S	W1	W2	LEAD AWG NO.
AA	0.256 [6.502]	0.597 [15.164]	0.100 [2.540]	0.787 [19.990]	0.948 [24.079]	22
BB	0.335 [8.509]	0.638 [16.205]	0.138 [3.505]	0.787 [19.990]	0.948 [24.079]	22
CC	0.414 [10.516]	0.650 [16.510]	0.200 [5.080]	0.787 [19.990]	0.948 [24.079]	22
CD	0.414 [10.516]	0.784 [19.914]	0.200 [5.080]	0.562 [14.275]	0.688 [17.475]	22
CG	0.414 [10.516]	0.945 [24.003]	0.200 [5.080]	0.562 [14.275]	0.688 [17.475]	22

**ORDERING EXAMPLE**

Electrolytic capacitor 510D series: 510D 226 M 016 AA 3 D

DESCRIPTION	
CODE	EXPLANATION
510D	Product type
226	Capacitance value (22 µF)
M	Tolerance (M = ± 20 %)
016	Voltage rating at 105 °C (016 = 16 V)
AA	Can size (see "Dimensions" table)
3	Sleeve and sealing (3 = P.V.C. sleeve w/epoxy end seal)
D	Packaging (D = Bulk; straight leads)

**Note**

- For lead (Pb)-free/RoHS compliant products add suffix "E3" to part number.  
Example: 510D226M016AA3DE3



<b>STANDARD RATINGS</b> in inches [millimeters]		
<b>CAPACITANCE (μF)</b>	<b>CASE CODE</b>	<b>PART NUMBER</b>
<b>6.3 WV<sub>DC</sub> AT +105 °C, SURGE = 9 V</b>		
47.0	AA	510D476M6R3AA3D
100.0	BB	510D107M6R3BB3D
150.0	CC	510D157M6R3CC3D
220.0	CD	510D227M6R3CD3D
330.0	CG	510D337M6R3CG3D
<b>10 WV<sub>DC</sub> AT +105 °C, SURGE = 15 V</b>		
33.0	AA	510D336M010AA3D
68.0	BB	510D686M010BB3D
100.0	CC	510D107M010CC3D
150.0	CD	510D157M010CD3D
220.0	CG	510D227M010CG3D
<b>16 WV<sub>DC</sub> AT +105 °C, SURGE = 20 V</b>		
22.0	AA	510D226M016AA3D
47.0	BB	510D476M016BB3D
68.0	CC	510D686M016CC3D
100.0	CD	510D107M016CD3D
150.0	CG	510D157M016CG3D
<b>25 WV<sub>DC</sub> AT +105 °C, SURGE = 35 V</b>		
15.0	AA	510D156M025AA3D
33.0	BB	510D336M025BB3D
68.0	CD	510D686M025CD3D
100.0	CG	510D107M025CG3D
<b>35 WV<sub>DC</sub> AT +105 °C, SURGE = 45 V</b>		
10.0	AA	510D106M035AA3D
22.0	BB	510D226M035BB3D
33.0	CC	510D336M035CC3D
47.0	CG	510D476M035CG3D
<b>50 WV<sub>DC</sub> AT +105 °C, SURGE = 65 V</b>		
1.0	See 63 V Listing	-
1.5	See 63 V Listing	-
2.2	See 63 V Listing	-
3.3	See 63 V Listing	-
4.7	See 63 V Listing	-
6.8	AA	510D685M050AA3D
10.0	See 63 V Listing	-
15.0	BB	510D156M050BB3D
22.0	CC	510D226M050CC3D
<b>63 WV<sub>DC</sub> AT +105 °C, SURGE = 80 V</b>		
1.0	AA	510D105M063AA3D
1.5	AA	510D155M063AA3D
2.2	AA	510D225M063AA3D
3.3	AA	510D335M063AA3D
4.7	AA	510D475M063AA3D
6.8	BB	510D685M063BB3D
10.0	BB	510D106M063BB3D
15.0	CC	510D156M063CC3D