

## Aluminum Capacitors +85 °C, Miniature, General Purpose


**FEATURES**

- Increased CV efficiency
- New 0.709" [18.0 mm] diameter case size
- Axial lead
- 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	0.248" x 0.512" [6.3 x 13.0] to 0.709" x 1.574" [18.0 x 40.0]
Operating temperature	-40 °C to +85 °C (3 WV <sub>DC</sub> to 250 WV <sub>DC</sub> ) -20 °C to +85 °C (251 WV <sub>DC</sub> to 450 WV <sub>DC</sub> )
Rated capacitance range, C <sub>R</sub>	0.22 µF to 10 000 µF
Tolerance on C <sub>R</sub>	± 20 %
Rated voltage range, U <sub>R</sub>	6.3 WV <sub>DC</sub> to 450 WV <sub>DC</sub>
Life validation test at 85 °C	2000 h: ΔCAP ≤ 20 % from initial measurement. ΔESR ≤ 1.5 x initial specified limit. ΔDCL ≤ initial specified limit.
Shelf life at 85 °C	500 h: ΔCAP ≤ 20 % from initial measurement. ΔESR ≤ 1.5 x initial specified limit. ΔDCL ≤ 2.0 x initial specified limit.
DC leakage current	I = 0.01 CV + 10 µA (3 V <sub>DC</sub> to 100 V <sub>DC</sub> ) I = 0.03 CV + 20 µA (101 V <sub>DC</sub> to 450 V <sub>DC</sub> ) I in µA, C in µF, V in Volts

RIPPLE CURRENT MULTIPLIERS				
TEMPERATURE				
AMBIENT TEMPERATURE		MULTIPLIERS		
+85 °C		1.0		
+75 °C		1.25		
≤ 65 °C		1.5		
FREQUENCY (Hz)				
WV <sub>DC</sub>	50 TO 60	100 TO 120	300 TO 400	1K TO 100K
0 to 50	0.85	1.0	1.05	1.1
51 to 450	0.80	1.0	1.30	1.5

DIMENSIONS in inches [millimeters]						
CASE CODE	NOMINAL		STYLE 2		STYLE 5	
	D	L	D (max.)	L (max.)	D (max.)	L (max.)
BA	0.248 [6.300]	0.512 [13.000]	0.276 [7.000]	0.567 [14.400]	0.276 [7.000]	0.626 [15.900]
BB	0.248 [6.300]	0.689 [17.500]	0.276 [7.000]	0.756 [19.200]	0.276 [7.000]	0.815 [20.700]
CB	0.315 [8.000]	0.689 [17.500]	0.339 [8.600]	0.756 [19.200]	0.339 [8.600]	0.815 [20.700]
CC	0.315 [8.000]	0.807 [20.500]	0.339 [8.600]	0.878 [22.300]	0.339 [8.600]	0.937 [23.800]
DC	0.374 [9.500]	0.807 [20.500]	0.402 [10.200]	0.878 [22.300]	0.402 [10.200]	0.937 [23.800]
DD	0.374 [9.500]	0.945 [24.000]	0.402 [10.200]	1.010 [25.500]	0.402 [10.200]	1.063 [27.000]
DF	0.374 [9.500]	1.260 [32.000]	0.402 [10.200]	1.319 [33.500]	0.402 [10.200]	1.378 [35.000]
DH	0.374 [9.500]	1.496 [38.000]	0.402 [10.200]	1.567 [39.800]	0.402 [10.200]	1.626 [41.300]
EF	0.433 [11.000]	1.260 [32.000]	0.465 [11.800]	1.319 [33.500]	0.465 [11.800]	1.378 [35.000]
EH	0.433 [11.000]	1.496 [38.000]	0.465 [11.800]	1.567 [39.800]	0.465 [11.800]	1.626 [41.300]
FH	0.492 [12.500]	1.496 [38.000]	0.516 [13.100]	1.567 [39.800]	0.516 [13.100]	1.626 [41.300]
FK	0.492 [12.500]	1.752 [44.500]	0.516 [13.100]	1.831 [46.500]	0.516 [13.100]	1.890 [48.000]
GH	0.630 [16.000]	1.496 [38.000]	0.654 [16.600]	1.567 [39.800]	0.654 [16.600]	1.626 [41.300]
GK	0.630 [16.000]	1.752 [44.500]	0.654 [16.600]	1.831 [46.500]	0.654 [16.600]	1.890 [48.000]
LS	0.709 [18.000]	1.575 [40.000]	0.736 [18.700]	1.673 [42.500]	0.736 [18.700]	1.693 [43.000]

**Note**

- Lead diameter AWG 20 (0.032" [0.81 mm])

**ORDERING EXAMPLE**

Electrolytic capacitor 500D series: 500D 686 M 6R3 BA 2 A

DESCRIPTION	
CODE	EXPLANATION
500D	Product type
686	Capacitance value (68 $\mu$ F)
M	Tolerance (M = $\pm$ 20 %)
6R3	Voltage rating at 85 °C (6R3 = 6.3 V)
BA	Can size (see Dimensions table)
2	Sleeve and sealing (2 = P.V.C. sleeve)
A	Packaging (A = bulk)

**Note**

- For lead (Pb)-free / RoHS compliant products add suffix "E3" to part number.  
Example: 500D686M6R3BA2AE3

ELECTRICAL DATA AND ORDERING INFORMATION		
CAPACITANCE ( $\mu$ F)	PART NUMBER	NOMINAL CASE SIZE D x L
<b>6.3 WV<sub>DC</sub> AT +85 °C, SURGE = 8 V</b>		
68	500D686M6R3BA2A	0.248 x 0.512 [6.3 x 13.0]
150	500D157M6R3BB2A	0.248 x 0.689 [6.3 x 17.5]
220	500D227M6R3CB2A	0.315 x 0.689 [8.0 x 17.5]
330	500D337M6R3CC2A	0.315 x 0.807 [8.0 x 20.5]
680	500D687M6R3DC2A	0.374 x 0.807 [9.5 x 20.5]
820	500D827M6R3DD2A	0.374 x 0.945 [9.5 x 24.0]
1200	500D128M6R3DF2A	0.374 x 1.260 [9.5 x 32.0]
2200	500D228M6R3DH2A	0.374 x 1.496 [9.5 x 38.0]
2200	500D228M6R3EF2A	0.433 x 1.260 [11.0 x 32.0]
3300	500D338M6R3EH2A	0.433 x 1.496 [11.0 x 38.0]
3300	500D338M6R3FH2A	0.492 x 1.496 [12.5 x 38.0]
4700	500D478M6R3FK2A	0.492 x 1.752 [12.5 x 44.5]
5600	500D568M6R3GH2A	0.630 x 1.496 [16.0 x 38.0]
8200	500D828M6R3GK2A	0.630 x 1.752 [16.0 x 44.5]
10 000	500D109M6R3LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>10 WV<sub>DC</sub> AT +85 °C, SURGE = 12 V</b>		
47	500D476M010BA2A	0.248 x 0.512 [6.3 x 13.0]
100	500D107M010BB2A	0.248 x 0.689 [6.3 x 17.5]
220	500D227M010CB2A	0.315 x 0.689 [8.0 x 17.5]
330	500D337M010CC2A	0.315 x 0.807 [8.0 x 20.5]
470	500D477M010DC2A	0.374 x 0.807 [9.5 x 20.5]
680	500D687M010DD2A	0.374 x 0.945 [9.5 x 24.0]
1000	500D108M010DF2A	0.374 x 1.260 [9.5 x 32.0]
1500	500D158M010DH2A	0.374 x 1.496 [9.5 x 38.0]
1800	500D188M010EF2A	0.433 x 1.260 [11.0 x 32.0]
2200 <sup>(1)</sup>	500D228M010EH2	0.433 x 1.496 [11.0 x 38.0]
2700	500D278M010EH2A	0.433 x 1.496 [11.0 x 38.0]
2700	500D278M010FH2A	0.492 x 1.496 [12.5 x 38.0]
3300 <sup>(1)</sup>	500D338M010GH2	0.630 x 1.496 [16.0 x 38.0]
3900	500D398M010FK2A	0.492 x 1.752 [12.5 x 44.5]
4700	500D478M010GH2A	0.630 x 1.496 [16.0 x 38.0]
6800	500D688M010GK2A	0.630 x 1.752 [16.0 x 44.5]
8200	500D828M010LS2A	0.709 x 1.575 [18.0 x 40.0]

**Note**

- <sup>(1)</sup> Original part numbers not recommended for new equipment designs. For epoxy end seal, change "2" designation to "5".  
"5" is not normally stocked.



<b>ELECTRICAL DATA AND ORDERING INFORMATION</b>		
<b>CAPACITANCE (<math>\mu</math>F)</b>	<b>PART NUMBER</b>	<b>NOMINAL CASE SIZE D x L</b>
<b>12 WV<sub>DC</sub> AT +85 °C, SURGE = 15 V</b>		
39	500D396M012BA2A	0.248 x 0.512 [6.3 x 13.0]
68	500D686M012BB2A	0.248 x 0.689 [6.3 x 17.5]
150	500D157M012CB2A	0.315 x 0.689 [8.0 x 17.5]
220	500D227M012CC2A	0.315 x 0.807 [8.0 x 20.5]
330	500D337M012DC2A	0.374 x 0.807 [9.5 x 20.5]
560	500D567M012DD2A	0.374 x 0.807 [9.5 x 20.5]
820	500D827M012DF2A	0.374 x 1.260 [9.5 x 32.0]
1200	500D128M012DH2A	0.374 x 1.496 [9.5 x 38.0]
1500	500D158M012EF2A	0.433 x 1.260 [11.0 x 32.0]
2200	500D228M012EH2A	0.433 x 1.496 [11.0 x 38.0]
2200	500D228M012FH2A	0.492 x 1.496 [12.5 x 38.0]
2700	500D278M012FK2A	0.492 x 1.752 [12.5 x 44.5]
3900	500D398M012GH2A	0.630 x 1.496 [16.0 x 38.0]
5600	500D568M012GK2A	0.630 x 1.752 [16.0 x 44.5]
6800	500D688M012LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>16 WV<sub>DC</sub> AT +85 °C, SURGE = 20 V</b>		
33	500D336M016BA2A	0.248 x 0.512 [6.3 x 13.0]
68	500D686M016BB2A	0.248 x 0.689 [6.3 x 17.5]
100 <sup>(1)</sup>	500D107M016CB2	0.315 x 0.689 [8.0 x 17.5]
150	500D157M016CB2A	0.315 x 0.689 [8.0 x 17.5]
220	500D227M016CC2A	0.315 x 0.807 [8.0 x 20.5]
330	500D337M016DC2A	0.374 x 0.807 [9.5 x 20.5]
470	500D477M016DD2A	0.374 x 0.945 [9.5 x 24.0]
680	500D687M016DF2A	0.374 x 1.260 [9.5 x 32.0]
1000 <sup>(1)</sup>	500D108M016DH2	0.374 x 1.496 [9.5 x 38.0]
1200	500D128M016DH2A	0.374 x 1.496 [9.5 x 38.0]
1200	500D128M016EF2A	0.433 x 1.260 [11.0 x 32.0]
1500 <sup>(1)</sup>	500D158M016EH2	0.433 x 1.496 [11.0 x 38.0]
1800	500D188M016EH2A	0.433 x 1.496 [11.0 x 38.0]
1800	500D188M016FH2A	0.492 x 1.496 [12.5 x 38.0]
2200 <sup>(1)</sup>	500D228M016FK2	0.492 x 1.752 [12.5 x 44.5]
2700	500D278M016FK2A	0.492 x 1.752 [12.5 x 44.5]
3300	500D338M016GH2A	0.630 x 1.496 [16.0 x 38.0]
3300 <sup>(1)</sup>	500D338M016GK2	0.630 x 1.752 [16.0 x 44.5]
4700	500D478M016GK2A	0.630 x 1.752 [16.0 x 44.5]
5600	500D568M016LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>25 WV<sub>DC</sub> AT +85 °C, SURGE = 35 V</b>		
22	500D226M025BA2A	0.248 x 0.512 [6.3 x 13.0]
33 <sup>(1)</sup>	500D336M025BB2	0.248 x 0.689 [6.3 x 17.5]
47	500D476M025BB2A	0.248 x 0.689 [6.3 x 17.5]
68	500D686M025CB2A	0.315 x 0.689 [8.0 x 17.5]
100	500D107M025CC2A	0.315 x 0.807 [8.0 x 20.5]
150 <sup>(1)</sup>	500D157M025DC2	0.374 x 0.807 [9.5 x 20.5]
220	500D227M025DC2A	0.374 x 0.807 [9.5 x 20.5]
330	500D337M025DD2A	0.374 x 0.945 [9.5 x 24.0]
330 <sup>(1)</sup>	500D337M025DF2	0.374 x 1.260 [9.5 x 32.0]
470	500D477M025DF2A	0.374 x 1.260 [9.5 x 32.0]
820	500D827M025DH2A	0.374 x 1.496 [9.5 x 38.0]
680	500D687M025EF2A	0.433 x 1.260 [11.0 x 32.0]

**Note**

<sup>(1)</sup> Original part numbers not recommended for new equipment designs. For epoxy end seal, change “2” designation to “5”. “5” is not normally stocked.



<b>ELECTRICAL DATA AND ORDERING INFORMATION</b>		
<b>CAPACITANCE (<math>\mu</math>F)</b>	<b>PART NUMBER</b>	<b>NOMINAL CASE SIZE D x L</b>
<b>25 WV<sub>DC</sub> AT +85 °C, SURGE = 35 V</b>		
1000 <sup>(1)</sup>	500D108M025FH2	0.492 x 1.496 [12.5 x 38.0]
1200	500D128M025EH2A	0.433 x 1.496 [11.0 x 38.0]
1200	500D128M025FH2A	0.492 x 1.496 [12.5 x 38.0]
1800	500D188M025FK2A	0.492 x 1.752 [12.5 x 44.5]
1800	500D188M025GH2A	0.630 x 1.496 [16.0 x 38.0]
2200 <sup>(1)</sup>	500D228M025GK2	0.630 x 1.752 [16.0 x 44.5]
2700	500D278M025GK2A	0.630 x 1.752 [16.0 x 44.5]
3300	500D338M025LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>35 WV<sub>DC</sub> AT +85 °C, SURGE = 40 V</b>		
15 <sup>(1)</sup>	500D156M035BA2	0.248 x 0.512 [6.3 x 13.0]
47 <sup>(1)</sup>	500D476M035CB2	0.315 x 0.689 [8.0 x 17.5]
330 <sup>(1)</sup>	500D337M035DH2	0.374 x 1.496 [9.5 x 38.0]
470 <sup>(1)</sup>	500D477M035EH2	0.433 x 1.496 [11.0 x 38.0]
680 <sup>(1)</sup>	500D687M035FK2	0.492 x 1.752 [12.5 x 44.5]
1000 <sup>(1)</sup>	500D108M035GH2	0.630 x 1.496 [16.0 x 38.0]
<b>40 WV<sub>DC</sub> AT +85 °C, SURGE = 50 V</b>		
15	500D156M040BA2A	0.248 x 0.512 [6.3 x 13.0]
22	500D226M040BB2A	0.248 x 0.689 [6.3 x 17.5]
47	500D476M040CB2A	0.315 x 0.689 [8.0 x 17.5]
68	500D686M040CC2A	0.315 x 0.807 [8.0 x 20.5]
100	500D107M040DC2A	0.374 x 0.807 [9.5 x 20.5]
180	500D187M040DD2A	0.374 x 0.945 [9.5 x 24.0]
270	500D277M040DF2A	0.374 x 1.260 [9.5 x 32.0]
470	500D477M040DH2A	0.374 x 1.496 [9.5 x 38.0]
470	500D477M040EF2A	0.433 x 1.260 [11.0 x 32.0]
680	500D687M040EH2A	0.433 x 1.496 [11.0 x 38.0]
680	500D687M040FH2A	0.492 x 1.496 [12.5 x 38.0]
1000	500D108M040FK2A	0.492 x 1.752 [12.5 x 44.5]
1200	500D128M040GH2A	0.630 x 1.496 [16.0 x 38.0]
1800	500D188M040GK2A	0.630 x 1.752 [16.0 x 44.5]
2200	500D228M040LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>50 WV<sub>DC</sub> AT +85 °C, SURGE = 65 V</b>		
10	500D106M050BA2A	0.248 x 0.512 [6.3 x 13.0]
22	500D226M050BB2A	0.248 x 0.689 [6.3 x 17.5]
33	500D336M050CB2A	0.315 x 0.689 [8.0 x 17.5]
68	500D686M050CC2A	0.315 x 0.807 [8.0 x 20.5]
100	500D107M050DC2A	0.374 x 0.807 [9.5 x 20.5]
150	500D157M050DD2A	0.374 x 0.945 [9.5 x 24.0]
220	500D227M050DF2A	0.374 x 1.260 [9.5 x 32.0]
330	500D337M050DH2A	0.374 x 1.496 [9.5 x 38.0]
330	500D337M050EF2A	0.433 x 1.260 [11.0 x 32.0]
470	500D477M050FH2A	0.492 x 1.496 [12.5 x 38.0]
560	500D567M050EH2A	0.433 x 1.496 [11.0 x 38.0]
680 <sup>(1)</sup>	500D687M050GH2	0.630 x 1.496 [16.0 x 38.0]
820	500D827M050FK2A	0.492 x 1.752 [12.5 x 44.5]
820	500D827M050GH2A	0.630 x 1.496 [16.0 x 38.0]
1000 <sup>(1)</sup>	500D108M050GK2	0.630 x 1.752 [16.0 x 44.5]
1500	500D158M050GK2A	0.630 x 1.752 [16.0 x 44.5]
1800	500D188M050LS2A	0.709 x 1.575 [18.0 x 40.0]

**Note**

<sup>(1)</sup> Original part numbers not recommended for new equipment designs. For epoxy end seal, change “2” designation to “5”. “5” is not normally stocked.



<b>ELECTRICAL DATA AND ORDERING INFORMATION</b>		
<b>CAPACITANCE (<math>\mu</math>F)</b>	<b>PART NUMBER</b>	<b>NOMINAL CASE SIZE D x L</b>
<b>63 WV<sub>DC</sub> AT +85 °C, SURGE = 75 V</b>		
6.8	500D685M063BA2A	0.248 x 0.512 [6.3 x 13.0]
15	500D156M063BB2A	0.248 x 0.689 [6.3 x 17.5]
22 <sup>(1)</sup>	500D226M063CB2	0.315 x 0.689 [8.0 x 17.5]
33	500D336M063CB2A	0.315 x 0.689 [8.0 x 17.5]
47	500D476M063CC2A	0.315 x 0.807 [8.0 x 20.5]
68	500D686M063DC2A	0.374 x 0.807 [9.5 x 20.5]
100	500D107M063DD2A	0.374 x 0.945 [9.5 x 24.0]
150	500D157M063DF2A	0.374 x 1.260 [9.5 x 32.0]
220 <sup>(1)</sup>	500D227M063DH2	0.374 x 1.496 [9.5 x 38.0]
220	500D227M063EF2A	0.433 x 1.260 [11.0 x 32.0]
270	500D277M063DH2A	0.374 x 1.496 [9.5 x 38.0]
390	500D397M063FH2A	0.492 x 1.496 [12.5 x 38.0]
470	500D477M063EH2A	0.433 x 1.496 [11.0 x 38.0]
470 <sup>(1)</sup>	500D477M063FK2	0.492 x 1.752 [12.5 x 44.5]
560	500D567M063FK2A	0.492 x 1.752 [12.5 x 44.5]
560	500D567M063GH2A	0.630 x 1.496 [16.0 x 38.0]
1000	500D108M063GK2A	0.630 x 1.752 [16.0 x 44.5]
1200	500D128M063LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>80 WV<sub>DC</sub> AT +85 °C, SURGE = 100 V</b>		
4.7 <sup>(1)</sup>	500D475M080BA2	0.248 x 0.512 [6.3 x 13.0]
47 <sup>(1)</sup>	500D476M080DC2	0.374 x 0.807 [9.5 x 20.5]
<b>100 WV<sub>DC</sub> AT +85 °C, SURGE = 125 V</b>		
1.0 <sup>(1)</sup>	500D105M100BA2	0.248 x 0.512 [6.3 x 13.0]
2.2 <sup>(1)</sup>	500D225M100BA2	0.248 x 0.512 [6.3 x 13.0]
3.3	500D335M100BA2A	0.248 x 0.512 [6.3 x 13.0]
4.7	500D475M100BB2A	0.248 x 0.689 [6.3 x 17.5]
10	500D106M100CB2A	0.315 x 0.689 [8.0 x 17.5]
15	500D156M100CC2A	0.315 x 0.807 [8.0 x 20.5]
22	500D226M100DC2A	0.374 x 0.807 [9.5 x 20.5]
33 <sup>(1)</sup>	500D336M100DD2	0.374 x 0.945 [9.5 x 24.0]
39	500D396M100DD2A	0.374 x 0.945 [9.5 x 24.0]
47 <sup>(1)</sup>	500D476M100DF2	0.374 x 1.260 [9.5 x 32.0]
56	500D566M100DF2A	0.374 x 1.260 [9.5 x 32.0]
100	500D107M100DH2A	0.374 x 1.496 [9.5 x 38.0]
100	500D107M100EF2A	0.433 x 1.260 [11.0 x 32.0]
100 <sup>(1)</sup>	500D107M100EH2	0.433 x 1.496 [11.0 x 38.0]
150	500D157M100EH2A	0.433 x 1.496 [11.0 x 38.0]
150	500D157M100FH2A	0.492 x 1.496 [12.5 x 38.0]
220	500D227M100FK2A	0.492 x 1.752 [12.5 x 44.5]
220	500D227M100GH2A	0.630 x 1.496 [16.0 x 38.0]
220 <sup>(1)</sup>	500D227M100GK2	0.630 x 1.752 [16.0 x 44.5]
390	500D397M100GK2A	0.630 x 1.752 [16.0 x 44.5]
470	500D477M100LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>150 WV<sub>DC</sub> AT +85 °C, SURGE = 175 V</b>		
1.0 <sup>(1)</sup>	500D105M150BA2	0.248 x 0.512 [6.3 x 13.0]
10 <sup>(1)</sup>	500D106M150DC2	0.374 x 0.807 [9.5 x 20.5]
22 <sup>(1)</sup>	500D226M150DF2	0.374 x 1.260 [9.5 x 32.0]
33 <sup>(1)</sup>	500D336M150EF2	0.433 x 1.260 [11.0 x 32.0]
47 <sup>(1)</sup>	500D476M150EH2	0.433 x 1.496 [11.0 x 38.0]

**Note**

<sup>(1)</sup> Original part numbers not recommended for new equipment designs. For epoxy end seal, change “2” designation to “5”.  
“5” is not normally stocked.



<b>ELECTRICAL DATA AND ORDERING INFORMATION</b>		
<b>CAPACITANCE (µF)</b>	<b>PART NUMBER</b>	<b>NOMINAL CASE SIZE D x L</b>
<b>160 WV<sub>DC</sub> AT +85 °C, SURGE = 180 V</b>		
1.5	500D155M160BA2A	0.248 x 0.512 [6.3 x 13.0]
2.7	500D275M160BB2A	0.248 x 0.689 [6.3 x 17.5]
3.3	500D335M160CB2A	0.315 x 0.689 [8.0 x 17.5]
6.8	500D685M160CC2A	0.315 x 0.807 [8.0 x 20.5]
10	500D106M160DC2A	0.374 x 0.807 [9.5 x 20.5]
15	500D156M160DD2A	0.374 x 0.945 [9.5 x 24.0]
22	500D226M160DF2A	0.374 x 1.260 [9.5 x 32.0]
27	500D276M160DH2A	0.374 x 1.496 [9.5 x 38.0]
33	500D336M160EF2A	0.433 x 1.260 [11.0 x 32.0]
47	500D476M160EH2A	0.433 x 1.496 [11.0 x 38.0]
47	500D476M160FH2A	0.492 x 1.496 [12.5 x 38.0]
56	500D566M160FK2A	0.492 x 1.752 [12.5 x 44.5]
82	500D826M160GH2A	0.630 x 1.496 [16.0 x 38.0]
100	500D107M160GK2A	0.630 x 1.752 [16.0 x 44.5]
120	500D127M160LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>200 WV<sub>DC</sub> AT +85 °C, SURGE = 250 V</b>		
1.2	500D125M200BA2A	0.248 x 0.512 [6.3 x 13.0]
2.2	500D225M200BB2A	0.248 x 0.689 [6.3 x 17.5]
2.2 <sup>(1)</sup>	500D225M200CB2	0.315 x 0.689 [8.0 x 17.5]
2.7	500D275M200CB2A	0.315 x 0.689 [8.0 x 17.5]
3.3 <sup>(1)</sup>	500D335M200CC2	0.315 x 0.807 [8.0 x 20.5]
4.7	500D475M200CC2A	0.315 x 0.807 [8.0 x 20.5]
8.2	500D825M200DC2A	0.374 x 0.807 [9.5 x 20.5]
10	500D106M200DD2A	0.374 x 0.945 [9.5 x 24.0]
15	500D156M200DF2A	0.374 x 1.260 [9.5 x 32.0]
22	500D226M200DH2A	0.374 x 1.496 [9.5 x 38.0]
27	500D276M200EF2A	0.433 x 1.260 [11.0 x 32.0]
33	500D336M200EH2A	0.433 x 1.496 [11.0 x 38.0]
33 <sup>(1)</sup>	500D336M200FK2	0.492 x 1.752 [12.5 x 44.5]
39	500D396M200FH2A	0.492 x 1.496 [12.5 x 38.0]
47	500D476M200FK2A	0.492 x 1.752 [12.5 x 44.5]
68	500D686M200GH2A	0.630 x 1.496 [16.0 x 38.0]
82	500D826M200GK2A	0.630 x 1.752 [16.0 x 44.5]
100	500D107M200LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>250 WV<sub>DC</sub> AT +85 °C, SURGE = 300 V</b>		
1.0	500D105M250BA2A	0.248 x 0.512 [6.3 x 13.0]
1.5 <sup>(1)</sup>	500D155M250CB2	0.315 x 0.689 [8.0 x 17.5]
1.8	500D185M250BB2A	0.248 x 0.689 [6.3 x 17.5]
2.2	500D225M250CB2A	0.315 x 0.689 [8.0 x 17.5]
2.2 <sup>(1)</sup>	500D225M250CC2	0.315 x 0.807 [8.0 x 20.5]
3.3	500D335M250CC2A	0.315 x 0.807 [8.0 x 20.5]
4.7 <sup>(1)</sup>	500D475M250DC2	0.374 x 0.807 [9.5 x 20.5]
6.8	500D685M250DC2A	0.374 x 0.807 [9.5 x 20.5]
8.2	500D825M250DD2A	0.374 x 0.945 [9.5 x 24.0]
10 <sup>(1)</sup>	500D106M250DF2	0.374 x 1.260 [9.5 x 32.0]
12	500D126M250DF2A	0.374 x 1.260 [9.5 x 32.0]
15 <sup>(1)</sup>	500D156M250EF2	0.433 x 1.260 [11.0 x 32.0]
18	500D186M250DH2A	0.374 x 1.496 [9.5 x 38.0]
18	500D186M250EF2A	0.433 x 1.260 [11.0 x 32.0]

**Note**

<sup>(1)</sup> Original part numbers not recommended for new equipment designs. For epoxy end seal, change “2” designation to “5”. “5” is not normally stocked.



<b>ELECTRICAL DATA AND ORDERING INFORMATION</b>		
<b>CAPACITANCE (<math>\mu</math>F)</b>	<b>PART NUMBER</b>	<b>NOMINAL CASE SIZE D x L</b>
<b>250 WV<sub>DC</sub> AT +85 °C, SURGE = 300 V</b>		
22 <sup>(1)</sup>	500D226M250EH2	0.433 x 1.496 [11.0 x 38.0]
27	500D276M250EH2A	0.433 x 1.496 [11.0 x 38.0]
27	500D276M250FH2A	0.492 x 1.496 [12.5 x 38.0]
39	500D396M250FK2A	0.492 x 1.752 [12.5 x 44.5]
47	500D476M250GH2A	0.630 x 1.496 [16.0 x 38.0]
47 <sup>(1)</sup>	500D476M250GK2	0.630 x 1.752 [16.0 x 44.5]
56	500D566M250GK2A	0.630 x 1.752 [16.0 x 44.5]
82	500D826M250LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>350 WV<sub>DC</sub> AT +85 °C, SURGE = 400 V</b>		
0.47	500D474M350BA2A	0.248 x 0.512 [6.3 x 13.0]
0.82	500D824M350BB2A	0.248 x 0.689 [6.3 x 17.5]
1.0 <sup>(1)</sup>	500D105M350CB2	0.315 x 0.689 [8.0 x 17.5]
1.2	500D125M350CB2A	0.315 x 0.689 [8.0 x 17.5]
1.8	500D185M350CC2A	0.315 x 0.807 [8.0 x 20.5]
2.2 <sup>(1)</sup>	500D225M350DC2	0.374 x 0.807 [9.5 x 20.5]
3.3	500D335M350DC2A	0.374 x 0.807 [9.5 x 20.5]
3.9	500D395M350DD2A	0.374 x 0.945 [9.5 x 24.0]
4.7 <sup>(1)</sup>	500D475M350DF2	0.374 x 1.260 [9.5 x 32.0]
5.6	500D565M350DF2A	0.374 x 1.260 [9.5 x 32.0]
8.2	500D825M350DH2A	0.374 x 1.496 [9.5 x 38.0]
10	500D106M350EF2A	0.433 x 1.260 [11.0 x 32.0]
10.0 <sup>(1)</sup>	500D106M350EH2	0.433 x 1.496 [11.0 x 38.0]
12	500D126M350EH2A	0.433 x 1.496 [11.0 x 38.0]
15	500D156M350FH2A	0.492 x 1.496 [12.5 x 38.0]
18	500D186M350FK2A	0.492 x 1.752 [12.5 x 44.5]
22	500D226M350GH2A	0.630 x 1.496 [16.0 x 38.0]
33	500D336M350GK2A	0.630 x 1.752 [16.0 x 44.5]
39	500D396M350LS2A	0.709 x 1.575 [18.0 x 40.0]
<b>400 WV<sub>DC</sub> AT +85 °C, SURGE = 450 V</b>		
0.27	500D274M400BA2A	0.248 x 0.512 [6.3 x 13.0]
0.56	500D564M400BB2A	0.248 x 0.689 [6.3 x 17.5]
0.68	500D684M400CB2A	0.315 x 0.689 [8.0 x 17.5]
1.0	500D105M400CC2A	0.315 x 0.807 [8.0 x 20.5]
1.5 <sup>(1)</sup>	500D155M400DC2	0.374 x 0.807 [9.5 x 20.5]
2.2	500D225M400DC2A	0.374 x 0.807 [9.5 x 20.5]
2.7	500D275M400DD2A	0.374 x 0.945 [9.5 x 24.0]
3.9	500D395M400DF2A	0.374 x 1.260 [9.5 x 32.0]
5.6	500D565M400DH2A	0.374 x 1.496 [9.5 x 38.0]
6.8	500D685M400EF2A	0.433 x 1.260 [11.0 x 32.0]
10	500D106M400EH2A	0.433 x 1.496 [11.0 x 38.0]
10 <sup>(1)</sup>	500D106M400FK2	0.492 x 1.752 [12.5 x 44.5]
12	500D126M400FH2A	0.492 x 1.496 [12.5 x 38.0]
15	500D156M400FK2A	0.492 x 1.752 [12.5 x 44.5]
18	500D186M400GH2A	0.630 x 1.496 [16.0 x 38.0]
22	500D226M400GK2A	0.630 x 1.752 [16.0 x 44.5]
39	500D396M400LS2A	0.709 x 1.575 [18.0 x 40.0]

**Note**

<sup>(1)</sup> Original part numbers not recommended for new equipment designs. For epoxy end seal, change "2" designation to "5".  
"5" is not normally stocked.



ELECTRICAL DATA AND ORDERING INFORMATION		
CAPACITANCE ( $\mu$ F)	PART NUMBER	NOMINAL CASE SIZE D x L
<b>450 WV<sub>DC</sub> AT +85 °C, SURGE = 500 V</b>		
0.22	500D224M450BA2A	0.248 x 0.512 [6.3 x 13.0]
0.47	500D474M450BB2A	0.248 x 0.689 [6.3 x 17.5]
0.56	500D564M450CB2A	0.315 x 0.689 [8.0 x 17.5]
0.82	500D824M450CC2A	0.315 x 0.807 [8.0 x 20.5]
1.0 <sup>(1)</sup>	500D105M450DC2	0.374 x 0.807 [9.5 x 20.5]
1.8	500D185M450DC2A	0.374 x 0.807 [9.5 x 20.5]
2.2	500D225M450DD2A	0.374 x 0.945 [9.5 x 24.0]
2.2 <sup>(1)</sup>	500D225M450DF2	0.374 x 1.260 [9.5 x 32.0]
3.3	500D335M450DF2A	0.374 x 1.260 [9.5 x 32.0]
4.7	500D475M450DH2A	0.374 x 1.496 [9.5 x 38.0]
5.6	500D565M450EF2A	0.433 x 1.260 [11.0 x 32.0]
8.2	500D825M450EH2A	0.433 x 1.496 [11.0 x 38.0]
10	500D106M450FH2A	0.492 x 1.496 [12.5 x 38.0]
10 <sup>(1)</sup>	500D106M450GK2	0.630 x 1.752 [16.0 x 44.5]
12	500D126M450FK2A	0.492 x 1.752 [12.5 x 44.5]
15	500D156M450GH2A	0.630 x 1.496 [16.0 x 38.0]
18	500D186M450GK2A	0.630 x 1.752 [16.0 x 44.5]
33	500D336M450LS2A	0.709 x 1.575 [18.0 x 40.0]

**Note**

<sup>(1)</sup> Original part numbers not recommended for new equipment designs. For epoxy end seal, change “2” designation to “5”. “5” is not normally stocked.

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.





## **Disclaimer**

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.