

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


**FEATURES**

- Original SMPS output capacitors
- Minimal ESR change
- High ripple current capability
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

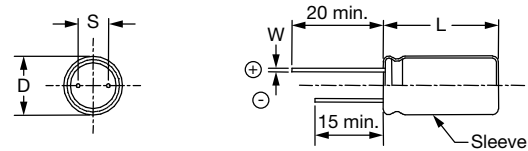
| QUICK REFERENCE DATA                        |   |
|---|---|
| DESCRIPTION                                 | VALUE   |
| Nominal case size<br>Ø D x L in inches [mm] | 0.394 x 0.472 [10.0 x 12.0]<br>to 0.709 x 1.575 [18.0 x 40.0]   |
| Operating temperature                       | -55 °C to +105 °C   |
| Rated capacitance range, C <sub>R</sub>     | 4.7 µF to 3300 µF   |
| Tolerance on C <sub>R</sub>                 | -10 %, +50 %  |
| Rated voltage range, U <sub>R</sub>         | 6.3 WV <sub>DC</sub> to 250 WV <sub>DC</sub>  |
| Termination                                 | 2 and 3 radial leads and axial mount.   |
| Life validation test                        | 4000 h at +105 °C (≥ 13.0 mm dia.);<br>3000 h at +105 °C (10.0 mm dia.);<br>ΔCAP ≤ 20 % from initial measurement.<br>ΔESR ≤ 1.15 x initial specified limit.<br>ΔDCL ≤ initial specified limit.  |
| Shelf life at 105 °C                        | 500 h: ΔCAP ≤ 10 % from initial measurement.<br>ΔESR ≤ 1.15 x initial specified limit.<br>ΔDCL ≤ 2 x initial specified limit,<br>(6.3 WV <sub>DC</sub> to 100 WV <sub>DC</sub> );<br>≤ 3 x initial specified limit,<br>(150 WV <sub>DC</sub> to 250 WV <sub>DC</sub> ). |
| DC leakage current<br>(after 2 min charge)  | $I = 0.03 \sqrt{CV}$<br>(6.3 V <sub>DC</sub> to 100 V <sub>DC</sub> )<br>$I = 0.01 CV$<br>(150 V <sub>DC</sub> to 250 V <sub>DC</sub> )<br>I in µA, C in µF, V in Volts   |

| RIPPLE CURRENT MULTIPLIERS |          |             |            |           |
|----------------------------|----------|-------------|------------|-----------|
| TEMPERATURE                |          |             |            |           |
| AMBIENT TEMPERATURE        |          | MULTIPLIERS |            |           |
| +105 °C                    |          | 0.5         |            |           |
| +85 °C                     |          | 1.0         |            |           |
| ≤ +75 °C                   |          | 1.25        |            |           |
| FREQUENCY (Hz)             |          |             |            |           |
| WV <sub>DC</sub>           | 50 TO 60 | 100 TO 120  | 300 TO 400 | 1K TO 19K |
| 0 to 75                    | 0.60     | 0.70        | 0.75       | 0.80      |
| 76 to 100                  | 0.40     | 0.55        | 0.70       | 0.80      |
| 101 to 250                 | 0.25     | 0.35        | 0.45       | 0.65      |

| LOW TEMPERATURE PERFORMANCE   |                |              |              |              |
|---|----------------|--------------|--------------|--------------|
| CAPACITANCE RATIO C <sup>-55 °C</sup> / C <sup>+25 °C</sup> MINIMUM AT 120 Hz |                |              |              |              |
| MAXIMUM CAPACITANCE CHANGE  | VOLTAGE        | MULTIPLIER   |              |              |
|   | 6.3 V to 100 V | 0.75         |              |              |
| 150 V to 250 V  | 0.70           |              |              |              |
| MAXIMUM IMPEDANCE CHANGE  | VOLTAGE        | MULTIPLIER   |              |              |
|   | 6.3 V to 100 V | 2.5          |              |              |
| 150 V to 250 V  | 2.0            |              |              |              |
| ESL (TYPICAL VALUES AT 1 MHz TO 10 MHz)                                       |                |              |              |              |
| NOMINAL DIAMETER  | 0.394 [10.0]   | 0.512 [13.0] | 0.630 [16.0] | 0.709 [18.0] |
| TYPICAL ESL (nH)  | 4.0            | 7.0          | 10.0         | 12.0         |

**BULK SPECIFICATIONS** in millimeters

**TERMINAL CODE C**

**TERMINAL CODE D**

**TERMINAL CODE J <sup>(1)</sup>**

**TERMINAL CODE O <sup>(2)</sup>**

**Notes**

- ⊕ Positive terminal
- ⊖ Negative terminal
- Ⓝ No charge potential

<sup>(1)</sup> Available for 12.5 mm, 16 mm, and 18 mm diameter units

<sup>(2)</sup> Available for 12.5 mm, 16 mm, and 18 mm diameter units with epoxy end-seal

| <b>DIMENSIONS</b> in inches [millimeters] |              |              |                |              |                |              |                  |                  |               |     |
|---|--------------|--------------|----------------|--------------|----------------|--------------|------------------|------------------|---------------|-----|
| CASE CODE                                 | NOMINAL      |              | STYLES 2 AND 4 |              | STYLES 3 AND 5 |              | LEAD SPACING     |                  | LEAD DIAMETER |     |
|   | D            | L            | D (max.)       | L (max.)     | D (max.)       | L (max.)     | S ± 0.024 [0.60] | T ± 0.020 [0.50] | NOMINAL       | AWG |
| CC  | 0.394 [10.0] | 0.512 [13.0] | 0.413 [10.5]   | 0.563 [14.3] | 0.413 [10.5]   | 0.630 [16.0] | 0.197 [5.0]      | n/a              | 0.025 [0.63]  | 22  |
| CD  | 0.394 [10.0] | 0.630 [16.0] | 0.413 [10.5]   | 0.669 [17.0] | 0.413 [10.5]   | 0.740 [18.8] | 0.197 [5.0]      | n/a              | 0.025 [0.63]  | 22  |
| CG  | 0.394 [10.0] | 0.787 [20.0] | 0.413 [10.5]   | 0.846 [21.5] | 0.413 [10.5]   | 0.906 [23.0] | 0.197 [5.0]      | n/a              | 0.025 [0.63]  | 22  |
| DG  | 0.492 [12.5] | 0.787 [20.0] | 0.512 [13.0]   | 0.846 [21.5] | 0.512 [13.0]   | 0.906 [23.0] | 0.197 [5.0]      | 0.098 [2.5]      | 0.032 [0.81]  | 20  |
| DK  | 0.492 [12.5] | 0.984 [25.0] | 0.512 [13.0]   | 1.043 [26.5] | 0.512 [13.0]   | 1.142 [29.0] | 0.197 [5.0]      | 0.098 [2.5]      | 0.032 [0.81]  | 20  |
| DM  | 0.492 [12.5] | 1.043 [26.5] | 0.512 [13.0]   | 1.102 [28.0] | 0.512 [13.0]   | 1.161 [29.5] | 0.197 [5.0]      | 0.098 [2.5]      | 0.032 [0.81]  | 20  |
| DT  | 0.492 [12.5] | 1.319 [33.5] | 0.512 [13.0]   | 1.346 [34.2] | 0.512 [13.0]   | 1.417 [36.0] | 0.197 [5.0]      | 0.098 [2.5]      | 0.032 [0.81]  | 20  |
| DS  | 0.492 [12.5] | 1.673 [42.5] | 0.512 [13.0]   | 1.720 [43.7] | 0.512 [13.0]   | 1.791 [45.5] | 0.197 [5.0]      | 0.098 [2.5]      | 0.032 [0.81]  | 20  |
| EK  | 0.630 [16.0] | 0.984 [25.0] | 0.650 [16.5]   | 1.031 [26.2] | 0.650 [16.5]   | 1.098 [27.9] | 0.295 [7.5]      | 0.150 [3.8]      | 0.032 [0.81]  | 20  |
| EN  | 0.630 [16.0] | 1.260 [32.0] | 0.650 [16.5]   | 1.319 [33.5] | 0.650 [16.5]   | 1.417 [36.0] | 0.295 [7.5]      | 0.150 [3.8]      | 0.032 [0.81]  | 20  |
| ER  | 0.630 [16.0] | 1.417 [36.0] | 0.650 [16.5]   | 1.476 [37.5] | 0.650 [16.5]   | 1.575 [40.0] | 0.295 [7.5]      | 0.150 [3.8]      | 0.032 [0.81]  | 20  |
| ET  | 0.630 [16.0] | 1.319 [33.5] | 0.650 [16.5]   | 1.347 [34.2] | 0.650 [16.5]   | 1.417 [36.0] | 0.295 [7.5]      | 0.150 [3.8]      | 0.032 [0.81]  | 20  |
| EU  | 0.630 [16.0] | 1.575 [40.0] | 0.650 [16.5]   | 1.642 [41.7] | 0.650 [16.5]   | 1.669 [42.4] | 0.295 [7.5]      | 0.150 [3.8]      | 0.032 [0.81]  | 20  |
| FR  | 0.709 [18.0] | 1.417 [36.0] | 0.728 [18.5]   | 1.476 [37.5] | 0.728 [18.5]   | 1.575 [40.0] | 0.295 [7.5]      | 0.150 [3.8]      | 0.032 [0.81]  | 20  |
| FV  | 0.709 [18.0] | 1.575 [40.0] | 0.728 [18.5]   | 1.653 [42.0] | 0.728 [18.5]   | 1.693 [43.0] | 0.295 [7.5]      | 0.150 [3.8]      | 0.032 [0.81]  | 20  |

**TAPE AND REEL, SPECIFICATIONS TO EIA-468D** in inches [millimeters]

**Formed Leads**


| <b>DIMENSIONS</b> in inches [millimeters] <b>AND PACKAGING QUANTITIES</b> |                       |                      |
|---|-----------------------|----------------------|
| <b>CASE SIZE</b>  | <b>F LEAD SPACING</b> | <b>STD. QTY/REEL</b> |
| 0.236 x 0.453 [6.0 x 11.0]  | 0.197 [5.0]           | 800                  |
| 0.315 x 0.472 [8.0 x 12.0]  | 0.197 [5.0]           | 700                  |

**Unformed (Straight) Leads**


| <b>DIMENSIONS</b> in inches [millimeters] <b>AND PACKAGING QUANTITIES</b> |                            |                      |
|---|----------------------------|----------------------|
| <b>CASE SIZE</b>  | <b>F LEAD SPACING</b>      | <b>STD. QTY/REEL</b> |
| 0.236 x 0.453 [6.0 x 11.0]  | 0.098 [2.5]                | 800                  |
| 0.315 x 0.472 [8.0 x 12.0]  | 0.140 [3.5] <sup>(1)</sup> | 700                  |
| 0.394 x 0.512 [10.0 x 13.0]   | 0.197 [5.0]                | 500                  |
| 0.394 x 0.630 [10.0 x 16.0]   | 0.197 [5.0]                | 500                  |
| 0.394 x 0.787 [10.0 x 20.0]   | 0.197 [5.0]                | 500                  |

**Note**
<sup>(1)</sup> Available as special order.



| DIMENSIONS in inches [millimeters]       |                               |                               |                                |                                |                                |
|--|-------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|
| ITEM                                     | CASE SIZE (DIAMETER x LENGTH) |                               |                                |                                |                                |
|  | 0.236 x 0.433<br>[6.0 x 11.0] | 0.315 x 0.472<br>[8.0 x 12.0] | 0.394 x 0.512<br>[10.0 x 13.0] | 0.394 x 0.630<br>[10.0 x 16.0] | 0.394 x 0.787<br>[10.0 x 20.0] |
| d - Lead-wire diameter                   | 0.025 [0.63]                  | 0.025 [0.63]                  | 0.025 [0.63]                   | 0.025 [0.63]                   | 0.025 [0.63]                   |
| P - Pitch of component                   | 0.500 [12.7]                  | 0.500 [12.7]                  | 0.500 [12.7]                   | 0.500 [12.7]                   | 0.500 [12.7]                   |
| P <sub>0</sub> - Feed hole pitch         | 0.500 [12.7]                  | 0.500 [12.7]                  | 0.500 [12.7]                   | 0.500 [12.7]                   | 0.500 [12.7]                   |
| F - Lead-to-lead distance                | 0.197 [5.0]                   | 0.197 [5.0]                   | 0.197 [5.0]                    | 0.197 [5.0]                    | 0.197 [5.0]                    |
| K - Clinch height                        | 0.098 [2.5]                   | 0.157 [4.0]                   | n/a                            | n/a                            | n/a                            |
| H - Height of component from tape center | 0.728 [18.5]                  | 0.787 [20.0]                  | 0.906 [23.0]                   | 0.906 [23.0]                   | 0.906 [23.0]                   |
| H <sub>0</sub> - Lead-wire clinch height | 0.630 [16.0]                  | 0.630 [16.0]                  | n/a                            | n/a                            | n/a                            |
| W - Tape width                           | 0.709 [18.0]                  | 0.709 [18.0]                  | 0.709 [18.0]                   | 0.709 [18.0]                   | 0.709 [18.0]                   |
| W <sub>0</sub> - Hold down tape width    | 0.591 [15.0]                  | 0.591 [15.0]                  | 0.591 [15.0]                   | 0.591 [15.0]                   | 0.591 [15.0]                   |
| D <sub>0</sub> - Feed hole diameter      | 0.157 [4.0]                   | 0.157 [4.0]                   | 0.157 [4.0]                    | 0.157 [4.0]                    | 0.157 [4.0]                    |
| f - Total tape thickness                 | 0.028 [0.7]                   | 0.028 [0.7]                   | 0.028 [0.7]                    | 0.028 [0.7]                    | 0.028 [0.7]                    |
| L <sub>1</sub> - Maximum lead protrusion | 0.118 [3.0]                   | 0.118 [3.0]                   | 0.118 [3.0]                    | 0.118 [3.0]                    | 0.118 [3.0]                    |

**Note**

- Positive leader is standard. Negative leader is available by special order.

**ORDERING EXAMPLE**

Electrolytic capacitor 672D series: 672D 336 F 100 DM 5 D

| DESCRIPTION |  |
|-------------|--|
| CODE        | EXPLANATION  |
| 672D        | Product type   |
| 336         | Capacitance value (33 μF)                                  |
| F           | Tolerance (F = -10 % / +50 %)                              |
| 100         | Voltage rating at 105 °C (100 = 100 V)                     |
| DM          | Can size (see Dimensions table)                            |
| 5           | Sleeve and sealing (5 = polyester sleeve w/epoxy end seal) |
| D           | Terminal code / packaging (D = bulk; straight leads)       |

**Note**

- For lead (Pb)-free / RoHS compliant products add suffix "E3" to part number.  
Example: 672D336F100DM5DE3

| ELECTRICAL DATA AND ORDERING INFORMATION          |                 |                             |                           |        |   |   |
|---|-----------------|-----------------------------|---------------------------|--------|---|---|
| CAPACITANCE<br>(μF)                               | PART NUMBER     | NOMINAL CASE SIZE<br>D x L  | MAX. ESR<br>AT +25 °C (Ω) |        | MAX. RIPPLE<br>AT +85 °C (A)<br>20 kHz TO 100 kHz | MAX.<br>IMPEDANCE<br>AT +25 °C (Ω)<br>100 kHz |
|   |                 |                             | 120 Hz                    | 20 kHz |   |   |
| <b>6.3 WV<sub>DC</sub> AT 105 °C, SURGE = 9 V</b> |                 |                             |                           |        |   |   |
| 150.0   | 672D157F6RCD5D  | 0.394 x 0.630 [10.0 x 16.0] | 1.10                      | 0.70   | 0.50  | 0.60  |
| 220.0   | 672D227F6RCG5D  | 0.394 x 0.787 [10.0 x 20.0] | 0.75                      | 0.40   | 0.70  | 0.33  |
| 1000.0  | 672D108F6REK5D  | 0.630 x 0.984 [16.0 x 25.0] | 0.16                      | 0.09   | 2.05  | 0.085   |
| 1500.0  | 672D158F6RET5D  | 0.630 x 1.319 [16.0 x 33.5] | 0.105                     | 0.06   | 2.90  | 0.055   |
| 3300.0  | 672D338F6RFV5D  | 0.709 x 1.575 [18.0 x 40.0] | 0.075                     | 0.045  | 3.40  | 0.045   |
| <b>12 WV<sub>DC</sub> AT 105 °C, SURGE = 16 V</b> |                 |                             |                           |        |   |   |
| 100.0   | 672D107F012CC5D | 0.394 x 0.512 [10.0 x 13.0] | 1.60                      | 0.90   | 0.40  | 0.70  |
| 470.0   | 672D477F012DM5D | 0.492 x 1.043 [12.5 x 26.5] | 0.31                      | 0.16   | 1.35  | 0.12  |
| 1000.0  | 672D108F012DS5D | 0.492 x 1.673 [12.5 x 42.5] | 0.15                      | 0.08   | 2.35  | 0.06  |
| 2200.0  | 672D228F012FV5D | 0.709 x 1.575 [18.0 x 40.0] | 0.08                      | 0.05   | 3.30  | 0.05  |
| <b>15 WV<sub>DC</sub> AT 105 °C, SURGE = 20 V</b> |                 |                             |                           |        |   |   |
| 100.0   | 672D107F015CD5D | 0.394 x 0.630 [10.0 x 16.0] | 1.35                      | 0.70   | 0.50  | 0.50  |
| 470.0   | 672D477F015DT5D | 0.492 x 1.319 [12.5 x 35.5] | 0.25                      | 0.12   | 1.75  | 0.11  |
| 1000.0  | 672D108F015ET5D | 0.630 x 1.319 [16.0 x 33.5] | 0.12                      | 0.06   | 2.90  | 0.055   |
| <b>20 WV<sub>DC</sub> AT 105 °C, SURGE = 30 V</b> |                 |                             |                           |        |   |   |
| 100.0   | 672D107F020CG5D | 0.394 x 0.787 [10.0 x 20.0] | 1.25                      | 0.40   | 0.70  | 0.35  |
| 470.0   | 672D477F020EK5D | 0.630 x 0.984 [16.0 x 25.0] | 0.24                      | 0.09   | 2.00  | 0.085   |
| 1000.0  | 672D158F020FV5D | 0.709 x 1.575 [18.0 x 40.0] | 0.09                      | 0.05   | 3.25  | 0.05  |



| ELECTRICAL DATA AND ORDERING INFORMATION            |                 |                             |                        |        |   |                                      |
|---|-----------------|-----------------------------|------------------------|--------|---|--------------------------------------|
| CAPACITANCE (µF)                                    | PART NUMBER     | NOMINAL CASE SIZE D x L     | MAX. ESR AT +25 °C (Ω) |        | MAX. RIPPLE AT +85 °C (A) 20 kHz TO 100 kHz | MAX. IMPEDANCE AT +25 °C (Ω) 100 kHz |
|   |                 |                             | 120 Hz                 | 20 kHz |   |                                      |
| <b>25 WV<sub>DC</sub> AT 105 °C, SURGE = 35 V</b>   |                 |                             |                        |        |   |                                      |
| 47.0  | 672D476F025CC5D | 0.394 x 0.512 [10.0 x 13.0] | 2.35                   | 0.90   | 0.40  | 0.85                                 |
| 330.0   | 672D337F025DT5D | 0.492 x 1.319 [12.5 x 33.5] | 0.29                   | 0.12   | 1.75  | 0.10                                 |
| 470.0   | 672D477F025DS5D | 0.492 x 1.673 [12.5 x 42.5] | 0.22                   | 0.08   | 2.35  | 0.07                                 |
| 1200.0  | 672D128F025FV5D | 0.709 x 1.575 [18.0 x 40.0] | 0.10                   | 0.05   | 3.20  | 0.055                                |
| <b>40 WV<sub>DC</sub> AT 105 °C, SURGE = 55 V</b>   |                 |                             |                        |        |   |                                      |
| 220.0   | 672D227F040EK5D | 0.630 x 0.984 [16.0 x 25.0] | 0.48                   | 0.14   | 1.65  | 0.12                                 |
| 330.0   | 672D337F040ET5D | 0.630 x 1.319 [16.0 x 33.5] | 0.32                   | 0.12   | 2.25  | 0.08                                 |
| <b>50 WV<sub>DC</sub> AT 105 °C, SURGE = 75 V</b>   |                 |                             |                        |        |   |                                      |
| 100.0   | 672D107F050DT5D | 0.492 x 1.319 [12.5 x 33.5] | 0.80                   | 0.26   | 1.15  | 0.22                                 |
| 150.0   | 672D157F050EK5D | 0.630 x 0.984 [16.0 x 25.0] | 0.55                   | 0.22   | 1.30  | 0.18                                 |
| 220.0   | 672D227F050ET5D | 0.630 x 1.319 [16.0 x 33.5] | 0.40                   | 0.15   | 1.85  | 0.12                                 |
| 470.0   | 672D477F050FV5D | 0.709 x 1.575 [18.0 x 40.0] | 0.25                   | 0.09   | 2.40  | 0.095                                |
| <b>60 WV<sub>DC</sub> AT 105 °C, SURGE = 85 V</b>   |                 |                             |                        |        |   |                                      |
| 15.0  | 672D156F060CD5D | 0.394 x 0.512 [10.0 x 13.0] | 7.00                   | 2.00   | 0.28  | 1.70                                 |
| 22.0  | 672D226F060CG5D | 0.394 x 0.787 [10.0 x 20.0] | 4.60                   | 1.20   | 0.40  | 1.00                                 |
| 100.0   | 672D107F060EK5D | 0.630 x 0.984 [16.0 x 25.0] | 0.90                   | 0.28   | 1.20  | 0.24                                 |
| 150.0   | 672D157F060ET5D | 0.630 x 1.319 [16.0 x 33.5] | 0.60                   | 0.18   | 1.65  | 0.15                                 |
| <b>75 WV<sub>DC</sub> AT 105 °C, SURGE = 100 V</b>  |                 |                             |                        |        |   |                                      |
| 12.0  | 672D126F075CD5D | 0.394 x 0.512 [10.0 x 13.0] | 8.50                   | 2.20   | 0.26  | 1.75                                 |
| 120.0   | 672D127F075ET5D | 0.630 x 1.319 [16.0 x 33.5] | 0.68                   | 0.18   | 1.50  | 0.16                                 |
| <b>100 WV<sub>DC</sub> AT 105 °C, SURGE = 125 V</b> |                 |                             |                        |        |   |                                      |
| 10.0  | 672D106F100CD5D | 0.394 x 0.630 [10.0 x 16.0] | 10.00                  | 2.30   | 0.26  | 1.80                                 |
| 33.0  | 672D336F100DM5D | 0.492 x 1.043 [12.5 x 26.5] | 2.55                   | 0.55   | 0.72  | 0.39                                 |
| 120.0   | 672D127F100ET5D | 0.630 x 1.319 [16.0 x 33.5] | 0.68                   | 0.19   | 1.50  | 0.17                                 |
| <b>200 WV<sub>DC</sub> AT 105 °C, SURGE = 250 V</b> |                 |                             |                        |        |   |                                      |
| 4.7   | 672D475F200CG5D | 0.394 x 0.787 [10.0 x 20.0] | 22.50                  | 1.95   | 0.31  | 1.75                                 |
| 15.0  | 672D156F200DT5D | 0.492 x 1.319 [12.5 x 33.5] | 7.00                   | 0.58   | 0.76  | 0.55                                 |
| 47.0  | 672D476F200FV5D | 0.709 x 1.575 [18.0 x 40.0] | 2.30                   | 0.18   | 1.90  | 0.165                                |
| <b>250 WV<sub>DC</sub> AT 105 °C, SURGE = 300 V</b> |                 |                             |                        |        |   |                                      |
| 10.0  | 672D106F250DT5D | 0.492 x 1.319 [12.5 x 33.5] | 12.00                  | 1.50   | 0.48  | 1.60                                 |

| ELECTRICAL DATA AND ORDERING INFORMATION - Original ratings |           |                 |
|---|-----------|-----------------|
| CAPACITANCE (µF)  | CASE CODE | PART NUMBER     |
| <b>6.3 WV<sub>DC</sub> AT 105 °C, SURGE = 9 V</b>           |           |                 |
| 150.0   | CD        | 672D157H6R3CD5C |
| 220.0   | CG        | 672D227H6R3CG5C |
| 680.0   | DM        | 672D687H6R3DM5C |
| 1000.0  | EK        | 672D108H6R3EK5C |
| 1200.0  | DS        | 672D158H6R3ET5C |
| 3300.0  | FV        | 672D338H6R3FV5C |
| <b>7.5 WV<sub>DC</sub> AT 105 °C, SURGE = 10 V</b>          |           |                 |
| 100.0   | CC        | 672D107H7R5CC5C |
| 150.0   | CD        | 672D157H7R5CD5C |
| 680.0   | DT        | 672D687H7R5DT5C |
| 1000.0  | ET        | 672D108H7R5ET5C |
| 2700.0  | FV        | 672D278H7R5FV5C |

**Note**

- Capacitance tolerance code H, -10 %, +100 %; lead code C, cut leads. C lead = negative lead: 0.281" [7.1 mm], ± 0.062" [1.6 mm]; positive lead: 0.375" [9.5 mm], ± 0.062" [1.6 mm]. D lead = 1.0" [25.4 mm] minimum.



| <b>ELECTRICAL DATA AND ORDERING INFORMATION - Original ratings</b> |                  |                    |
|--|------------------|--------------------|
| <b>CAPACITANCE (<math>\mu\text{F}</math>)</b>                      | <b>CASE CODE</b> | <b>PART NUMBER</b> |
| <b>12 WV<sub>DC</sub> AT 105 °C, SURGE = 16 V</b>                  |                  |                    |
| 100.0  | CC               | 672D107H012CC5C    |
| 150.0  | CG               | 672D157H012CG5C    |
| 470.0  | DM               | 672D477H012DM5C    |
| 680.0  | DT               | 672D687H012DT5C    |
| 1000.0   | DS               | 672D108H012DS5C    |
| 2200.0   | FV               | 672D228H012FV5C    |
| <b>15 WV<sub>DC</sub> AT 105 °C, SURGE = 20 V</b>                  |                  |                    |
| 100.0  | CD               | 672D107H015CD5C    |
| 150.0  | CG               | 672D157H015CG5C    |
| 470.0  | DT               | 672D477H015DT5C    |
| 680.0  | EK               | 672D687H015EK5C    |
| 820.0  | DS               | 672D827H015DS5C    |
| 1000.0   | ET               | 672D108H015ET5C    |
| 1800.0   | FV               | 672D188H015FV5C    |
| <b>20 WV<sub>DC</sub> AT 105 °C, SURGE = 30 V</b>                  |                  |                    |
| 68.0   | CD               | 672D868H020CD5C    |
| 100.0  | CG               | 672D107H020CG5C    |
| 330.0  | DM               | 672D337H020DM5C    |
| 470.0  | EK               | 672D477H020EK5C    |
| 560.0  | DS               | 672D567H020DS5C    |
| 680.0  | ET               | 672D687H020ET5C    |
| 1500.0   | FV               | 672D158H020FV5C    |
| <b>25 WV<sub>DC</sub> AT 105 °C, SURGE = 35 V</b>                  |                  |                    |
| 47.0   | CC               | 672D476H025CC5C    |
| 68.0   | CD               | 672D686H025CD5C    |
| 330.0  | DT               | 672D337H025DT5C    |
| 470.0  | DS               | 672D477H025DS5C    |
| 680.0  | EU               | 672D687H025EU5C    |
| 1200.0   | FV               | 672D128H025FV5C    |
| <b>40 WV<sub>DC</sub> AT 105 °C, SURGE = 55 V</b>                  |                  |                    |
| 47.0   | CD               | 672D476H040CD5C    |
| 220.0  | EK               | 672D227H040EK5C    |
| 330.0  | ET               | 672D337H040ET5C    |
| 390.0  | DS               | 672D397H040DS5C    |
| 820.0  | FV               | 672D827H040FV5C    |
| <b>50 WV<sub>DC</sub> AT 105 °C, SURGE = 75 V</b>                  |                  |                    |
| 22.0   | CD               | 672D226H050CD5C    |
| 100.0  | DT               | 672D107H050DT5C    |
| 150.0  | EK               | 672D157H050EK5C    |
| 180.0  | DS               | 672D187H050DS5C    |
| 220.0  | ET               | 672D227H050ET5C    |
| 470.0  | FV               | 672D477H050FV5C    |
| <b>60 WV<sub>DC</sub> AT 105 °C, SURGE = 85 V</b>                  |                  |                    |
| 15.0   | CD               | 672D156H060CD5C    |
| 22.0   | CG               | 672D226H060CG5C    |
| 68.0   | DM               | 672D686H060DM5C    |
| 100.0  | EK               | 672D107H060EK5C    |
| 120.0  | DS               | 672D127H060DS5C    |
| 150.0  | ET               | 672D157H060ET5C    |
| 390.0  | FV               | 672D397H060FV5C    |

**Note**

- Capacitance tolerance code H, -10 %, +100 %; lead code C, cut leads. C lead = negative lead: 0.281" [7.1 mm],  $\pm$  0.062" [1.6 mm]; positive lead: 0.375" [9.5 mm],  $\pm$  0.062" [1.6 mm]. D lead = 1.0" [25.4 mm] minimum.



| <b>ELECTRICAL DATA AND ORDERING INFORMATION - Original ratings</b> |                  |                    |
|--|------------------|--------------------|
| <b>CAPACITANCE (<math>\mu\text{F}</math>)</b>                      | <b>CASE CODE</b> | <b>PART NUMBER</b> |
| <b>75 WV<sub>DC</sub> AT 105 °C, SURGE = 100 V</b>                 |                  |                    |
| 12.0   | CD               | 672D126H075CD5C    |
| 18.0   | CG               | 672D186H075CG5C    |
| 82.0   | EK               | 672D826H075EK5C    |
| 120.0  | ET               | 672D127H075ET5C    |
| 270.0  | FV               | 672D277H075FV5C    |
| <b>100 WV<sub>DC</sub> AT 105 °C, SURGE = 125 V</b>                |                  |                    |
| 8.2  | CC               | 672D825H100CC5C    |
| 10.0   | CD               | 672D106H100CD5C    |
| 33.0   | DM               | 672D336H100DM5C    |
| 68.0   | EK               | 672D686H100EK5C    |
| 120.0  | ET               | 672D127H100ET5C    |
| 180.0  | FV               | 672D187H100FV5C    |
| <b>150 WV<sub>DC</sub> AT 105 °C, SURGE = 200 V</b>                |                  |                    |
| 6.8  | CG               | 672D685H150CG5C    |
| 22.0   | DT               | 672D226H150DT5C    |
| 39.0   | ET               | 672D396H150ET5C    |
| 68.0   | FV               | 672D686H150FV5C    |
| <b>200 WV<sub>DC</sub> AT 105 °C, SURGE = 250 V</b>                |                  |                    |
| 4.7  | CG               | 672D475H200CG5C    |
| 15.0   | DT               | 672D156H200DT5C    |
| 27.0   | ET               | 672D276H200ET5C    |
| 47.0   | FV               | 672D476H200FV5C    |
| <b>250 WV<sub>DC</sub> AT 105 °C, SURGE = 300 V</b>                |                  |                    |
| 8.2  | DM               | 672D825H250DM5C    |
| 10.0   | DT               | 672D106H250DT5C    |
| 22.0   | ET               | 672D226H250ET5C    |
| 39.0   | FV               | 672D396H250FV5C    |

**Note**

- Capacitance tolerance code H, -10 %, +100 %; lead code C, cut leads. C lead = negative lead: 0.281" [7.1 mm],  $\pm$  0.062" [1.6 mm]; positive lead: 0.375" [9.5 mm],  $\pm$  0.062" [1.6 mm]. D lead = 1.0" [25.4 mm] minimum.

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