

630D

Vishay Sprague

Aluminum Capacitors +125 °C, Miniature, Axial Lead

100 UF 25 VD3 ±10%

| QUICK REFERENCE DATA | | | | | | |
|--|---|--|--|--|--|--|
| DESCRIPTION | VALUE | | | | | |
| Nominal case size Ø D x L in mm | 0.248" x 0.689" [6.3 x 17.5] to 0.492" x 1.752" [12.5 x 44.5] | | | | | |
| Operating temperature | -55 °C to +125 °C | | | | | |
| Rated capacitance range, C_R | 6.8 µF to 3900 µF | | | | | |
| Tolerance on C _R | ± 20 % | | | | | |
| Rated voltage range, U _R | 3 WV _{DC} to 63 WV _{DC} | | | | | |
| Termination | Axial leaded | | | | | |
| Life validation test at 125 °C 500 h for case size BB to CB 1000 h for case size CC to DF 2000 h for case size DH to FK | $\label{eq:accap_state} \begin{split} \Delta CAP &\leq 20 \mbox{ from initial} \\ measurement. \\ \Delta ESR &\leq 1.5 \mbox{ x initial specified limit.} \\ \Delta DCL &\leq \mbox{ initial specified limit.} \end{split}$ | | | | | |
| Shelf life 500 h at 85 °C | $\label{eq:action} \begin{split} \Delta CAP &\leq 20 \ \% \ from \ initial \\ measurement. \\ \Delta ESR &\leq 1.5 \ x \ initial \ specified \ limit. \\ \Delta DCL &\leq 3 \ x \ the \ initial \ specified \ limit. \end{split}$ | | | | | |

 $I = 0.004 \text{ CV} + 3 (3 \text{ V}_{\text{DC}} \text{ to } 63 \text{ V}_{\text{DC}})$

I in µA, C in µF, V in Volts

FEATURES

- Extended temperature range
- Economical
- Low DCL option
- For timing circuit applications



| RIPPLE CURRENT MULTIPLIERS | | | | | | | | |
|----------------------------|----------|-------------|-----|------------|--------|--|--|--|
| TEMPERATURE | | | | | | | | |
| AMBIENT TEMPERATURE | | MULTIPLIERS | | | | | | |
| +105 °C | | 0.5 | | | | | | |
| +85 °C | | 1.0 | | | | | | |
| +65 °C | | 2.0 | | | | | | |
| +55 °C or less | | | 2.5 | | | | | |
| FREQUENCY (Hz) | | | | | | | | |
| WV _{DC} | 50 TO 60 | 100 TO 120 | | 300 TO 400 | > 1000 | | | |
| 3 to 63 | 0.90 | 1.00 | | 1.10 | 1.35 | | | |

| DIMENSIONS in inches [millimeters] | | | | | | | | | |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--|--|--|
| CASE CODE | NOMINAL | | STYLE 2 | | STYLE 5 | | | | |
| | D | L | D (max.) | L (max.) | D (max.) | L (max.) | | | |
| BB | 0.248 [6.3] | 0.689 [17.5] | 0.276 [7.0] | 0.756 [19.2] | 0.276 [7.0] | 0.815 [20.7] | | | |
| СВ | 0.315 [8.0] | 0.689 [17.5] | 0.339 [8.6] | 0.756 [19.2] | 0.339 [8.6] | 0.815 [20.7] | | | |
| CC | 0.315 [8.0] | 0.807 [20.5] | 0.339 [8.6] | 0.878 [22.3] | 0.339 [8.6] | 0.937 [23.8] | | | |
| DC | 0.374 [9.5] | 0.807 [20.5] | 0.402 [10.2] | 0.878 [22.3] | 0.402 [10.2] | 0.937 [23.8] | | | |
| DD | 0.374 [9.5] | 0.945 [24.0] | 0.402 [10.2] | 1.004 [25.5] | 0.402 [10.2] | 1.063 [27.0] | | | |
| DF | 0.374 [9.5] | 1.260 [32.0] | 0.402 [10.2] | 1.319 [33.5] | 0.402 [10.2] | 1.378 [35.0] | | | |
| DH | 0.374 [9.5] | 1.496 [38.0] | 0.402 [10.2] | 1.567 [39.8] | 0.402 [10.2] | 1.626 [41.3] | | | |
| EF | 0.433 [11.0] | 1.260 [32.0] | 0.465 [11.8] | 1.319 [33.5] | 0.465 [11.8] | 1.378 [35.0] | | | |
| EH | 0.433 [11.0] | 1.496 [38.0] | 0.465 [11.8] | 1.567 [39.8] | 0.465 [11.8] | 1.63 [41.3] | | | |
| FH | 0.492 [12.5] | 1.496 [38.0] | 0.516 [13.1] | 1.567 [39.8] | 0.516 [13.1] | 1.63 [41.3] | | | |
| FK | 0.492 [12.5] | 1.752 [44.5] | 0.516 [13.1] | 1.83 [46.5] | 0.516 [13.1] | 1.89 [48.0] | | | |

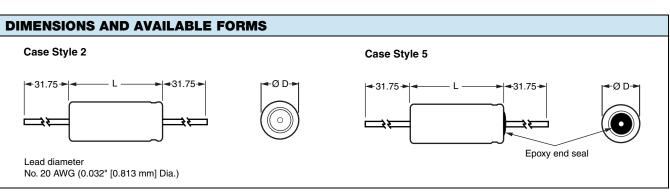
DC leakage current

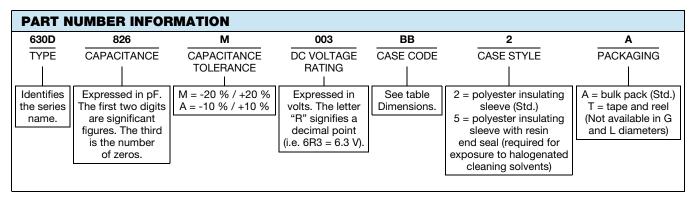
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Note

 For lead (Pb)-free / RoHS compliant products add suffix "E3" to part number. Example: 630D157M030DF2AE3

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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