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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Vishay Sprague



Aluminum Capacitors +85 °C, Snap-In

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QUICK REFERENCE DATA					
DESCRIPTION	VALUE				
Nominal case size Ø D x L in inches (mm)	1.38 x 3.15 (35.0 x 80.0)				
Operating temperature	-40 °C to +85 °C				
Rated capacitance range, C _R	82 μF to 56 000 μF				
Tolerance on C _R	-10 %, +30 %				
Rated voltage range, U _R	6.3 WV _{DC} to 250 WV _{DC}				
Termination	Snap mount				
Life validation test 2000 h at 85 °C	$\label{eq:capacity} \begin{array}{l} \Delta \text{CAP} \leq 15 \ \% \ \text{from initial} \\ \text{measurement.} \\ \Delta \text{ESR} \leq 1.5 \ \text{x} \ \text{initial specified limit.} \\ \Delta \text{DCL} \leq \text{initial specified limit} \end{array}$				
Shelf life 500 h at 85 °C	$\label{eq:capacity} \begin{array}{l} \Delta CAP \leq 15 \ \% \ from \ initial \\ measurement. \\ \Delta ESR \leq 1.3 \ x \ initial \ specified \ limit. \\ \Delta DCL \leq 2 \ x \ initial \ specified \ limit \end{array}$				
DC leakage current	I = k.√CV k = 4.0 at +25 °C I in μA, C in μF, V in Volts				

FEATURES

- Useful life: 2000 h at +85 °C
- General purpose
- Polarized aluminum electrolytic capacitors, non-solid electrolyte
- High ripple capability
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

RIPPLE CURRENT MULTIPLIERS						
TEMPERATURE						
AMBIENT TEMPE	RATURE	MULTIPLIERS				
-55 °C -65 °C -75 °C -85 °C		2.0 1.7 1.4 1.0				
FREQUENCY (Hz)						
WV _{DC}	50 TO 60	300 TO 1000	1000 AND UP			
0 to 49 50 to 199 200 to 250	0.85 0.83 0.80	1.10 1.15 1.30	1.15 1.20 1.40			
ESL (TYPICAL VALUES AT 1 MHz TO 10 MHz)						
Nominal Diameter	0.984 (25.0)	1.18 (30.0)	1.38 (35.0)			
Typical ESL (nH)	8.0	10.0	12.0			

DIMEN	DIMENSIONS in inches (millimeters)							
CASE CODE	DIAMETER	LENGTH	CASE	DIAMETER	LENGTH			
	D + 0.039 / - 0 (+ 1.0 / - 0)	L ± 0.079 (2.0)	CODE	D + 0.039 / - 0 (+ 1.0 / - 0)	L ± 0.079 (2.0)			
JA	1.00 (25.0)	1.00 (25.0)	KD	1.18 (30.0)	1.57 (40.0)			
JB	1.00 (25.0)	1.18 (30.0)	KE	1.18 (30.0)	2.00 (50.0)			
JC	1.00 (25.0)	1.38 (35.0)	MB	1.38 (35.0)	1.18 (30.0)			
JD	1.00 (25.0)	1.57 (40.0)	MC	1.38 (35.0)	1.38 (35.0)			
JE	1.00 (25.0)	2.00 (50.0)	MD	1.38 (35.0)	1.57 (40.0)			
KA	1.18 (30.0)	1.00 (25.0)	ME	1.38 (35.0)	2.00 (50.0)			
KB	1.18 (30.0)	1.18 (30.0)	MF	1.38 (35.0)	2.50 (63.0)			
KC	1.18 (30.0)	1.38 (35.0)	MG	1.38 (35.0)	3.18 (80.0)			

COMPLIANT

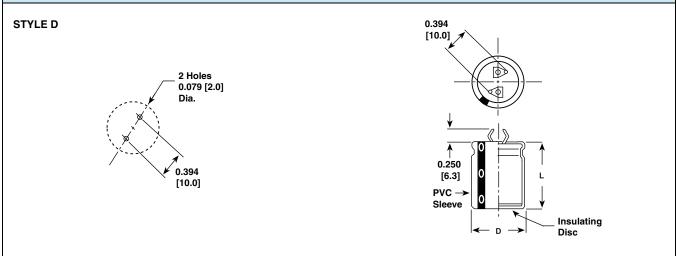
80D



80D

Vishay Sprague

DIMENSIONAL AND AVAILABLE FORMS



ORDERING EXAMPLE

Electrolytic capacitor 80D series: 80D122P200ME2DE3

DESCRIPTION				
CODE	EXPLANATION			
80D	Product type			
122	Capacitance value (1200 µF)			
Р	Tolerance (P = -10 % / +30 %)			
200	Voltage rating at 85 °C (200 V)			
ME	Can size (see dimensions table)			
2	PVC insulating sleeve			
D	Terminal style (D = 2 pin snap-in)			
E3	RoHS compliant			

ELECTRICAL DATA AND ORDERING INFORMATION								
CAPACITANCE (µF)	PART NUMBER	NOMINAL CASE SIZE D x L	MA	MAX. ESR (mΩ)		MAX. RIPPLE AT +85 °C (A)		
			120 Hz	10 kHz TO 40 kHz	120 Hz	10 kHz TO 40 kHz		
	16 WV _{DC} AT +85 °C, SURGE = 20 V							
8200.0	80D822P016JB2DE3	0.984 x 1.18 (25.0 x 30.0)	73.0	65.0	3.3	3.6		
8200.0	80D822P016KA2DE3	1.18 x 0.984 (30.0 x 25.0)	91.0	84.0	2.8	3.0		
10 000.0	80D103P016JC2DE3	0.984 x 1.38 (25.0 x 35.0)	59.0	53.0	3.9	4.2		
15 000.0	80D153P016JE2DE3	0.984 x 1.97 (25.0 x 50.0)	37.0	33.0	5.6	6.0		
22 000.0	80D223P016KE2DE3	1.18 x 1.97 (30.0 x 50.0)	35.0	32.0	5.8	6.1		
33 000.0	80D333P016ME2DE3	1.38 x 1.97 (35.0 x 50.0)	19.0	17.0	9.4	10.0		
		25 WV _{DC} AT +85 °C, SURGI	E = 30 V					
4700.0	80D472P025JB2DE3	0.984 x 1.18 (25.0 x 30.0)	76.0	65.0	3.2	3.6		
6800.0	80D682P025KB2DE3	1.18 x 1.18 (30.0 x 30.0)	71.0	63.0	3.4	3.6		
10 000.0	80D103P025JE2DE3	0.984 x 1.97 (25.0 x 50.0)	39.0	33.0	5.4	6.0		
10 000.0	80D103P025MB2DE3	1.38 x 1.18 (35.0 x 30.0)	38.0	33.0	5.5	6.2		
15 000.0	80D153P025KE2DE3	1.18 x 1.97 (30.0 x 50.0)	36.0	32.0	5.7	6.1		
22 000.0	80D223P025ME2DE3	1.38 x 1.97 (35.0 x 50.0)	19.0	17.0	9.1	10.0		

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ELECTRICAL DATA AND ORDERING INFORMATION						
CAPACITANCE (µF)	PART NUMBER	NOMINAL CASE SIZE	MAX. ESR (mΩ)		MAX. RIPPLE AT +85 °C (A)	
		D x L	120 Hz	10 kHz TO 40 kHz	120 Hz	10 kHz TO 40 kHz
		35 WV _{DC} AT +85 °C, SURGI	E = 44 V			
6800.0	80D682P035KC2DE3	1.18 x 1.38 (30.0 x 35.0)	60.0	51.0	3.8	4.2
10 000.0	80D103P035MC2DE3	1.38 x 1.38 (35.0 x 35.0)	33.0	27.0	6.2	7.2
12 000.0	80D123P035KE2DE3	1.18 x 1.97 (30.0 x 50.0)	33.0	27.0	6.2	7.2
15 000.0	80D153P035ME2DE3	1.38 x 1.97 (35.0 x 50.0)	20.0	17.0	8.8	10.0
		50 WV _{DC} AT +85 °C, SURG	E = 63 V			
3300.0	80D332P050JD2DE3	0.984 x 1.57 (25.0 x 40.0)	57.0	42.0	3.9	4.9
3300.0	80D332P050KB2DE3	1.18 x 1.18 (30.0 x 30.0)	79.0	63.0	3.1	3.6
4700.0	80D472P050KD2DE3	1.18 x 1.57 (30.0 x 40.0)	51.0	41.0	4.3	4.9
6800.0	80D682P050KE2DE3	1.18 x 1.97 (30.0 x 50.0)	40.0	32.0	5.3	6.1
		63 WV _{DC} AT +85 °C, SURG	E = 79 V			
1500.0	80D152P063JB2DE3	0.984 x 1.18 (25.0 x 30.0)	82.0	55.0	2.8	3.8
2200.0	80D222P063KB2DE3	1.18 x 1.18 (30.0 x 30.0)	72.0	54.0	3.2	3.9
3300.0	80D332P063MB2DE3	1.38 x 1.18 (35.0 x 30.0)	40.0	28.0	5.0	6.6
4700.0	80D472P063KE2DE3	1.18 x 1.97 (30.0 x 50.0)	36.0	28.0	5.4	6.4
6800.0	80D682P063ME2DE3	1.38 x 1.97 (35.0 x 50.0)	21.0	15.0	8.3	10.0
		100 WV _{DC} AT +85 °C, SURG	E = 125 V			
680.0	80D681P100JB2DE3	0.984 x 1.18 (25.0 x 30.0)	139.0	85.0	2.2	3.5
1000.0	80D102P100KB2DE3	1.18 x 1.18 (30.0 x 30.0)	111.0	74.0	2.7	3.7
1500.0	80D152P100JE2DE3	0.984 x 1.97 (25.0 x 50.0)	68.0	42.0	3.9	5.9
2200.0	80D222P100KE2DE3	1.18 x 1.97 (30.0 x 50.0)	55.0	37.0	4.7	6.2
3300.0	80D332P100ME2DE3	1.38 x 1.97 (35.0 x 50.0)	50.0	37.0	5.2	6.2
		200 WV _{DC} AT +85 °C, SURG	E = 250 V			
150.0	80D151P200JA2DE3	0.984 x 0.984 (25.0 x 25.0)	660.0	375.0	1.3	3.2
220.0	80D221P200KA2DE3	1.18 x 0.984 (30.0 x 25.0)	460.0	272.0	1.7	3.6
330.0	80D331P200KC2DE3	1.18 x 1.38 (30.0 x 35.0)	278.0	165.0	2.4	4.9
470.0	80D471P200KD2DE3	1.18 x 1.57 (30.0 x 40.0)	220.0	131.0	2.8	5.7
680.0	80D681P200KD2DE3	1.18 x 1.57 (30.0 x 40.0)	248.0	127.0	2.1	4.7
820.0	80D821P200ME2DE3	1.38 x 1.97 (35.0 x 50.0)	130.0	82.0	4.3	7.4
1000.0	80D102P200ME2DE3	1.38 x 1.97 (35.0 x 50.0)	144.0	81.0	3.4	6.6
1200.0	80D122P200ME2DE3	1.38 x 1.97 (35.0 x 50.0)	141.0	75.0	3.4	6.6
		250 WV _{DC} AT +85 °C, SURG	E = 300 V			
100.0	80D101P250JA2DE3	0.984 x 0.984 (25.0 x 25.0)	720.0	377.0	1.1	3.2
150.0	80D151P250JB2DE3	0.984 x 1.18 (25.0 x 30.0)	541.0	284.0	1.4	3.8
220.0	80D221P250JD2DE3	0.984 x 1.57 (25.0 x 40.0)	343.0	182.0	2.0	5.2
330.0	80D331P250JE2DE3	0.984 x 1.97 (25.0 x 50.0)	263.0	140.0	2.5	6.3
470.0	80D471P250KE2DE3	1.18 x 1.97 (30.0 x 50.0)	185.0	101.0	3.2	7.0
680.0	80D681P250ME2DE3	1.38 x 1.97 (35.0 x 50.0)	191.0	81.0	4.0	7.4

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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