For Filtering, Bypassing and Power Supply Decoupling



Type AVEZ Capacitors are rated for 1000 hours at 105 °C with low impedance characteristics. They are ideal for high density PC board packaging. The Type AVEZ offers a low in-place-cost for a high quality performer. The vertical cylindrical cases facilitate automatic mounting and reflow soldering into the same footprint of like-rated tantalum capacitors except without the need for voltage derating. Type AVEZ is RoHS compliant.

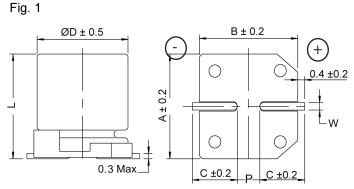
Highlights

- +105 °C, Up to 1000 Hours Load Life
- Capacitance Range: 1.0 μF to 220 μF
- Voltage Range: 6.3 Vdc to 50 Vdc

Specifications

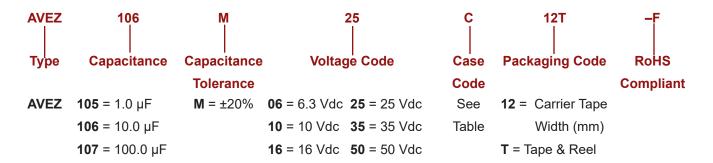
Capacitance Range	1.0 μ	to 220 μ	F									
Capacitance Tolerance	±20%	±20% @ 120 Hz and +20 °C										
Rated Voltage	6.3, 1	6.3, 10, 16, 25, 35, 50 Vdc										
Operating Temperature Range	-55 °C	-55 °C to +105 °C										
Leakage Current		$I = 0.01$ CV or 3 (μA) whichever is greater after 2 minutes $C = \text{rated capacitance in } \mu F, V = \text{rated DC working voltage}$										
Dissipation Factor	Ra	Rated Voltage 6.3		10		16	25	3	5	50		
(Tan d at 120 Hz, 20 °C)		Tan δ Max		0.30	0.26	0.26 0.22 0		0.16	.16 0.13 (0.12	
Low Temperature Characteristics @ 120 Hz		Ra	ited \	Voltage)		6.3	10	16	25	35	50
	Impedance	Z(-	-25 °C) /	25 °C) / Z(+20 °C)		4	3	2	2	2	2	
	L F	Ratio	Z(-	-40 °C) /	′ Z(+20 º	C)	8	5	4	3	3	3
Ripple Curent Multipliers	Vdc	Vdc Freq. (Hz) 50, 60 6.3 ~ 50 0.64			120		1 k		10 k up			
			35 35 0.01 0.00 0.33 1.00									
Load Life Test		Tes	t Tim	e				1,000) Hou	rs		
		Capacitance Change Within ±20% of initial value Dissipation Factor Less than 200% of specified value Leakage Current Within specified value				alue						
						d value	9					
		The above specifications shall be satisfied when the capacitors are restored t 20 °C after the rated voltage is applied for 1,000 hrs at 105 °C										
Shelf Life Test	Test t	Test time: 1000 hours; other items are the same as those for life test.										
	RoHS	Complian	<u>t</u>									

Outline Drawing, Case Code & Dimensions Table



Case	ØD	L	Α	В	С	W	P ±0.2
Code	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
В	4.0	5.3 ±0.2	4.3	4.3	2.0	0.5 to 0.8	1.0
С	5.0	5.3 ±0.2	5.3	5.3	2.3	0.5 to 0.8	1.5
D	6.3	5.3 ±0.2	6.6	6.6	2.7	0.5 to 0.8	2.0
Х	6.3	7.7 ±0.3	6.6	6.6	2.7	0.5 to 0.8	2.0

Part Numbering System

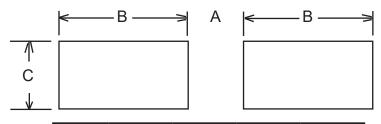


Ratings

		Max	Max	Max	Max			
	Catalog	DCL	DF	Impedance	Ripple Current	Case	Size	Quantity
Cap	Part Number	2 min.	120 Hz 20 °C	100 kHz 20 °C	100 kHz 105 °C	Code	DxL	per Reel
(μ F)		(µA)		(ohms)	(mA)		(mm)	(each)
			6.3 Vdc	(8 Vdc Surge)				
22	AVEZ226M06B12T-F	3.0	0.28	3.20	65	В	4 x 5.3	2000
33	AVEZ336M06C12T-F	3.0	0.28	1.50	110	С	5 x 5.3	1000
47	AVEZ476M06C12T-F	3.0	0.28	1.50	110	С	5 x 5.3	1000
100	AVEZ107M06D16T-F	6.3	0.28	0.85	170	D	6.3 x 5.3	1000
150	AVEZ157M06X16T-F	9.5	0.28	0.50	255	Χ	6.3 x 7.7	1000
220	AVEZ227M06X16T-F	13.9	0.28	0.50	255	Χ	6.3 x 7.7	1000
			10 Vdc (13 Vdc Surge)				
10	AVEZ106M10B12T-F	3.0	0.24	3.20	65	В	4 x 5.3	2000
22	AVEZ226M10C12T-F	3.0	0.24	1.50	110	С	5 x 5.3	1000
33	AVEZ336M10C12T-F	3.0	0.24	1.50	110	С	5 x 5.3	1000
47	AVEZ476M10D16T-F	3.0	0.24	0.85	170	D	6.3 x 5.3	1000
100	AVEZ107M10D16T-F	6.3	0.24	0.85	170	D	6.3 x 5.3	1000
150	AVEZ157M10X16T-F	9.5	0.24	0.50	255	X	6.3 x 7.7	1000
220	AVEZ227M10X16T-F	13.9	0.24	0.50	255	X	6.3 x 7.7	1000

		Max	Max	Max	Max				
	Catalog	DCL	DF	Impedance	Ripple Current	Case	Size	Quantity	
Сар	Part Number	2 min.	120 Hz 20 °C	100 kHz 20 °C	100 kHz 105 °C	Code	D x L	per Reel	
(µF)		(µA)		(ohms)	(mA)		(mm)	(each)	
	16 Vdc (13 Vdc Surge)								
10	AVEZ106M16B12T-F	3.0	0.2	3.20	65	В	4 x 5.3	2000	
22	AVEZ226M16C12T-F	3.0	0.2	1.50	110	С	5 x 5.3	1000	
33	AVEZ336M16D16T-F	3.0	0.2	0.85	170	D	6.3 x 5.3	1000	
47	AVEZ476M16D16T-F	3.0	0.2	0.85	170	D	6.3 x 5.3	1000	
100	AVEZ107M16D16T-F	6.3	0.2	0.85	170	D	6.3 x 5.3	1000	
150	AVEZ157M16X16T-F	9.5	0.2	0.50	255	Χ	6.3 x 7.7	1000	
220	AVEZ227M16X16T-F	13.9	0.2	0.50	255	Χ	6.3 x 7.7	1000	
			25 Vdc (31 Vdc Surge)					
4.7	AVEZ475M25B12T-F	3.0	0.16	3.20	65	В	4 x 5.3	2000	
10	AVEZ106M25C12T-F	3.0	0.16	1.50	110	С	5 x 5.3	1000	
22	AVEZ226M25D16T-F	3.0	0.16	0.85	170	D	6.3 x 5.3	1000	
33	AVEZ336M25D16T-F	3.0	0.16	0.85	170	D	6.3 x 5.3	1000	
47	AVEZ476M25D16T-F	3.0	0.16	0.85	170	D	6.3 x 5.3	1000	
100	AVEZ107M25X16T-F	6.3	0.16	0.5	255	Χ	6.3 x 7.7	1000	
			35 Vdc (44 Vdc Surge)					
4.7	AVEZ475M35B12T-F	3.0	0.14	3.20	65	В	4 x 5.3	2000	
10	AVEZ106M35C12T-F	3.0	0.14	1.50	110	С	5 x 5.3	1000	
22	AVEZ226M35D16T-F	3.0	0.14	0.85	170	D	6.3 x 5.3	1000	
33	AVEZ336M35D16T-F	3.0	0.14	0.85	170	D	6.3 x 5.3	1000	
47	AVEZ476M35X16T-F	3.0	0.14	0.50	255	Χ	6.3 x 7.7	1000	
			50 Vdc (63 Vdc Surge)					
1.0	AVEZ105M50B12T-F	3.0	0.12	5.0	30	В	4 x 5.3	2000	
2.2	AVEZ225M50B12T-F	3.0	0.12	5.0	30	В	4 x 5.3	2000	
3.3	AVEZ335M50B12T-F	3.0	0.12	5.0	30	В	4 x 5.3	2000	
4.7	AVEZ475M50C12T-F	3.0	0.12	3.0	50	С	5 x 5.3	1000	
10	AVEZ106M50D16T-F	3.0	0.12	2.0	70	D	6.3 x 5.3	1000	
22	AVEZ226M50D16T-F	3.0	0.12	3.0	70	D	6.3 x 5.3	1000	
33	AVEZ336M50X16T-F	3.0	0.12	1.0	170	Х	6.3 x 7.7	1000	

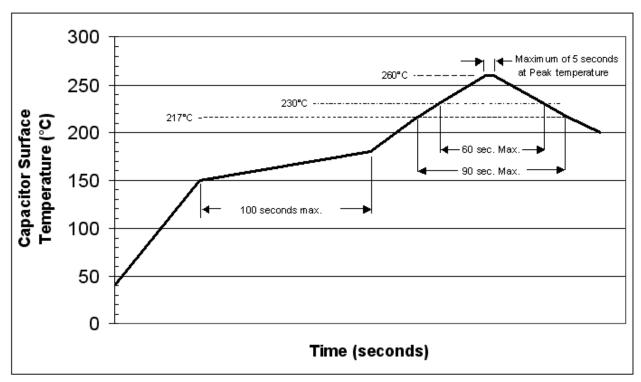
Recommended Land Patterns by case size for AVEZ series



Case		Land Dimensions (mm)					
Code	Case Size	С	В	Α			
В	4x5.3	1.6	2.6	1			
С	5x5.3	1.6	3	1.4			
D	6.3x5.3	1.6	3.5	1.9			
Х	6.3x7.7	1.6	3.5	1.9			

Recommended Soldering Methods

Recommended Reflow Soldering Profile:



Parts should be subjected to just one reflow soldering process.

Soldering with a solder iron should be performed with a maximum soldering iron tip temperature of 350±5°C for 3 to 4 seconds.

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