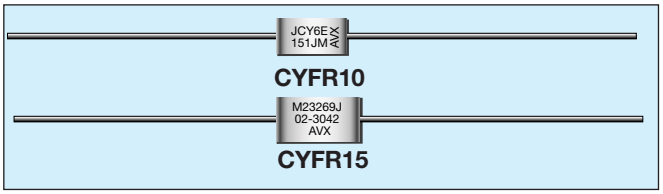
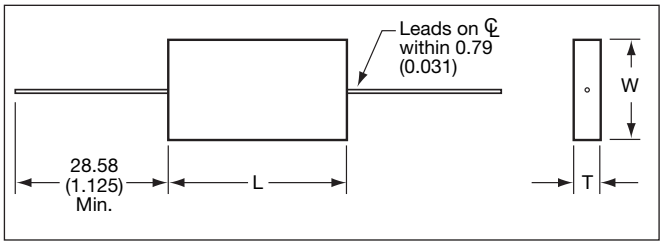
Glass Capacitors
CYFR10, 15 (High Reliability)

APPLICATIONS

AVX Style CYFR high reliability glass capacitors have failure rates among the lowest available Outstanding stability, reliability and electrical performance are provided by the fused monolithic construction, which is virtually immune to environmental stresses. These capacitors meet or exceed all requirements of AVX specifications J-950 and J-951, which combine the most exciting features of many military specifications and substantially exceed most.





PERFORMANCE CHARACTERISTICS

Tolerance: Available tolerances for each value of capacitance are shown in the Ordering Information table. For codes, refer to the Part Numbers paragraph.

Temperature Coefficient: +140 ±25 ppm/°C at 100kHz. TC will track and retrace to within ±5 ppm. Capacitance drift is less than 0.1% or 0.1 pF, whichever is greater.

Voltage Coefficient: Zero.

Losses: Extremely low, and remain relatively low at elevated temperatures and high frequencies. Dissipation factor is less than 0.001 at 1kHz and 25°C.

Life: At 2,000 hours at 125°C with 150% of rated voltage applied, capacitance change is less than 0.5% or 0.5 pF, dissipation factor is less than 0.0015, and insulation resistance is greater than 500,000 megohms.

Insulation Resistance: Greater than 500,000 megohms at 25°C; greater than 10,000 megohms at 125°C.

Voltage/Temperature Rating: Voltage ratings are shown in the ordering information table. The operating temperature range is -55°C to +125°C with no derating required.

Moisture Resistance: Meets or exceeds all requirements of J-951 and MIL-STD-202, Method 106 for 50 cycles.

Radiation Resistance: The unique materials and construction techniques involved with glass capacitors make them ideal for use in radiation environments. After a total dose of nearly 10^8 rads (H_2O) AVX glass capacitors exhibit only a minor change in capacitance (≤.5%) and an 8% change in dissipation factor. Furthermore, glass capacitors can operate in fast neutron flux environments of 10^{15} N $cm^{-2}sec^{-1}$ and experience little or no damage in component parameters.

Additional performance details are given in the AVX "Performance Characteristics of Multilayer Glass Dielectric Capacitors" technical paper.

DIMENSIONS:

millimeters (inches)

Case Size	L	W	T	Lead Dia. +0.1(+0.004) -0.03(±0.001)	Weight (grams)
CYFR10	8.74 ± 1.19 (0.344 ± 0.047)	4.37 ± .79 (0.172 ± 0.031)	1.98 ± .79 (0.078 ± 0.031)	.51 (0.020)	.25 - .50
CYFR15	11.91 ± 1.19 (0.469 ± 0.047)	6.76 ± .79 (0.266 ± 0.031)	2.77 ± 1.19 (0.109 ± 0.047)	.51 (0.020)	.75 - 1.25

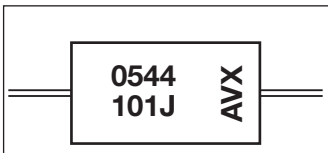
Note: Leads are solder-coated Dumet.

Glass Capacitors
Part Numbers and Ordering Information

HOW TO ORDER

CYFR	10	S	101	J	A
Style High Reliability Glass Capacitor	**Case Size** 10 15	**Lead Finish** 3 = Solder Coated Dumet	**Capacitance Code** Capacitance Code is expressed in picofarads (pF). The first two digits represent significant figures and the third digit specifies the number of zeros to follow; i.e. 101 indicates 100 pF. For values below 10 pF, R = decimal point; i.e. 1R5 indicates 1.5 pF.	**Capacitance Tolerance** C = ±.25 pF D = ±.50 pF F = ±1% G = ±2% J = ±5%	**Test Level** A = J-950 Specification No designator = J-951 Specification

MARKING



05 = Year
44 = Lot Code
101 = Capacitance, Coded in pF
J = Tolerance
AVX = AVX Corporation

RATINGS & PART NUMBER REFERENCE (Standard Values)

AVX Part Number	Capacitance (pF)	Tolerances Available	DC Working Voltage
	CYFR10		
CYFR10S0R5_	0.5	C	500
CYFR10S1R0_	1.0	C	500
CYFR10S1R5_	1.5	C	500
CYFR10S2R2_	2.2	C, D	500
CYFR10S2R7_	2.7	C	500
CYFR10S3R0_	3.0	C, D	500
CYFR10S3R3_	3.3	C	500
CYFR10S3R6_	3.6	C, D	500
CYFR1053R9_	3.9	C	500
CYFR10S4R3_	4.3	C	500
CYFR10S4R7_	4.7	C	500
CYFR10S5R1_	5.1	C	500
CYFR10S5R6_	5.6	C	500
CYFR10S6R2_	6.2	C, J	500
CYFR10S6R8_	6.8	C, J	500
CYFR10S7R5_	7.5	C, J	500
CYFR10S8R2_	8.2	C, J	500
CYFR10S9R1_	9.1	C, J	500
CYFR10S100_	10	C, J	500
CYFR10S110_	11	C, J	500
CYFR10S120_	12	C, J	500
CYFR10S130_	13	G, J	500
CYFR10S150_	15	G, J	500
CYFR10S160_	16	G, J	500
CYFR10S180_	18	G, J	500
CYFR10S200_	20	G, J	500
CYFR10S220_	22	G, J	500
CYFR10S240_	24	G, J	500
CYFR10S270_	27	F, G, J	500
CYFR10S300_	30	F, G, J	500
CYFR10S330_	33	F, G, J	500
CYFR10S360_	36	F, G, J	500
CYFR10S390_	39	F, G, J	500
CYFR10S430_	43	F, G, J	500
CYFR10S470_	47	F, G, J	500
CYFR10S510_	51	F, G, J	500
CYFR10S560_	56	F, G, J	500
CYFR10S620_	62	F, G, J	500
CYFR10S680_	68	F, G, J	500
CYFR10S750_	75	F, G, J	500
CYFR10S820_	82	F, G, J	500
CYFR10S910_	91	F, G, J	500
CYFR10S101_	100	F, G, J	500
CYFR10S111_	110	F, G, J	500
CYFR10S121_	120	F, G, J	500
CYFR10S131_	130	F, G, J	500
CYFR10S151_	150	F, G, J	500
CYFR10S161_	160	F, G, J	300
CYFR10S181_	180	F, G, J	300
CYFR10S201_	200	F, G, J	300
CYFR10S221_	220	F, G, J	300
CYFR10S241_	240	F, G, J	300

Add letter for tolerance code above lines.

AVX Part Number	Capacitance (pF)	Tolerances Available	DC Working Voltage
	CYFR15		
CYFR15S161_	160	F, G, J	500
CYFR15S181_	180	F, G, J	500
CYFR15S201_	200	F, G, J	500
CYFR15S221_	220	F, G, J	500
CYFR15S241_	240	F, G, J	500
CYFR15S271_	270	F, G, J	500
CYFR15S301_	300	F, G, J	500
CYFR15S331_	330	F, G, J	500
CYFR15S361_	360	F, G, J	500
CYFR15S391_	390	F, G, J	500
CYFR15S431_	430	F, G, J	500
CYFR15S471_	470	F, G, J	500
CYFR15S511_	510	F, G, J	500
CYFR15S561_	560	F, G, J	300
CYFR15S621	620	F, G, J	300
CYFR15S681_	680	F, G, J	300
CYFR15S751_	750	F, G, J	300
CYFR15S821_	820	F, G, J	300
CYFR15S911_	910	F, G, J	300
CYFR15S102_	1000	F, G, J	300
CYFR15S112_	1100	F, G, J	300
CYFR15S122_	1200	F, G, J	300

Add letter for tolerance code above lines.