

Military Glass Capacitors

MIL-PRF-23269/01, /02, /03, /04

CYR10, 15, 20, 30



APPLICATIONS

These precision glass-dielectric capacitors are QPL to Established Reliability specification MIL-PRF-23269. Fused monolithic construction provides excellent electrical performance, environmental immunity, stability and retraceability. These capacitors have axial leads.

PERFORMANCE CHARACTERISTICS

Temperature Coefficient: $+140 \pm 25$ ppm/°C from -55°C to +125°C. TC of all units will track and retrace to within ± 5 ppm.

Life: At rated conditions (100% rated voltage, 125°C), capacitance change is less than:

- $\pm 0.5\%$ after 2,000 hours
- $\pm 2.0\%$ after 30,000 hours

At accelerated conditions (150% rated voltage, 125°C), capacitance change is less than:

- $\pm 0.5\%$ after 2,000 hours
- $\pm 2.0\%$ after 6,000 hours

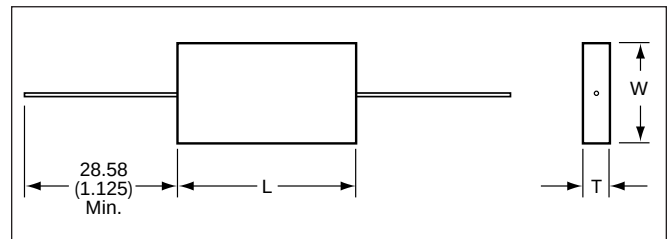
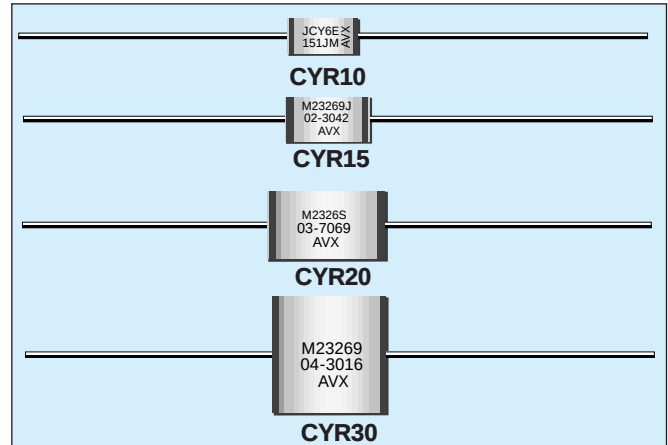
Insulation Resistance: A minimum of 100,000 megohms at 25°C and 10,000 megohms at 125°C.

Voltage/Temperature Rating: Voltage ratings are shown in the part number tables. The operating temperature range is -55°C to +125°C.

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) glass capacitors exhibit only a minor change in capacitance ($\leq 5\%$) and an 8% change in dissipation factor. Furthermore, glass capacitors can operate in fast neutron flux environments of 10^{15} N cm⁻²sec⁻¹ and experience little or no damage in component parameters.

Voltage Coefficient: Zero.

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)
CYR10	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)
CYR15	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)
CYR20	18.64 ± 1.57 (0.734 ± 0.062)	10.72 ± 1.19 (0.422 ± 0.047)	3.58 ± 1.19 (0.141 ± 0.047)	.63 (0.025)
CYR30	19.46 ± 1.57 (0.766 ± 0.062)	19.05 ± 1.98 (0.750 ± 0.078)	3.58 ± 1.19 (0.141 ± 0.047)	.63 (0.025)

Note: Standard leads are solder-coated Dumet.

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HOW TO ORDER

Military Type Designation: Styles CYR10, CYR15, CYR20, CYR30

Dash Number Option: MIL-PRF-23269/01, 02, 03, 04 (Add Appropriate Dash Number)

M23269

Style
Military Specification
Established Reliability
Glass Capacitor

01

Case Size
01 = CYR10
02 = CYR15
03 = CYR20
04 = CYR30

3

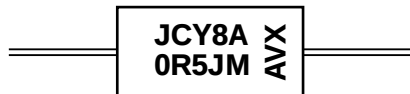
Failure Rate
3 = M level 1%/1000 hrs.
7 = S level .001%/1000 hrs.
(100 volt rating only)

001

Capacitance Code
Capacitance value
coded in accordance
with MIL-PRF-23269 –
(see Part Number section)

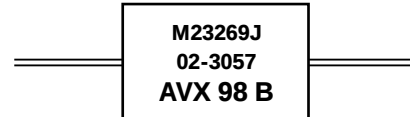
MARKING

CYR10



J = JAN Trademark
C = Capacitor
Y = Glass Dielectric
8 = Last digit of year
A = 4 week lot code
OR5 = Capacitance code –
OR5 = 0.5pF
J = Capacitance tolerance –
J = $\pm 5\%$, G = $\pm 2\%$, F = $\pm 1\%$
M = Failure level
AVX = AVX Corporation

CYR15-30



M23269 = Military specification
established reliability
glass capacitor
J = JAN Trademark
02 = Case size (CYR15)
3 = Failure rate (M level)
057 = Dash Number –
(capacitance in pF and
capacitance tolerance)
AVX = AVX Corporation
98 = Year
B = Lot Code

MILITARY PART NUMBER IDENTIFICATION

Cap. Value (pF)	Part Number* Capacitance Tolerance		
CYR10 M23269/01-			
500 Volts**	±.25pF	±.5pF	±5%
.5	* 001	—	—
1.0	002	—	—
1.5	003	—	—
2.2	004	* 005	—
2.7	006	—	—
3.0	007	008	—
3.3	009	—	—
3.6	010	011	—
3.9	012	—	—
4.3	013	014	—
4.7	015	—	—
5.1	016	—	—
5.6	017	—	* 018
6.2	019	—	020
6.8	021	—	022
7.5	023	—	024
8.2	025	—	026
9.1	027	—	028
10	029	—	030
11	031	—	032
12	033	—	034
	±1%	±2%	±5%
13	—	* 035	* 036
15	—	037	038
16	—	039	040
18	—	041	042
20	—	043	044
22	—	045	046
24	—	047	048
27	* 049	050	051
30	052	053	054
33	055	056	057
36	058	059	060
39	061	062	063
43	064	065	066
47	067	068	069
51	070	071	072
56	073	074	075
62	076	077	078

* Add first digit to indicate failure rate.

** S LEVEL = 100V rating for all values.

Cap. Value (pF)	Part Number* Capacitance Tolerance		
CYR10 M23269/01- (cont'd.)			
500 Volts**	±1%	±2%	±5%
68	* 079	* 080	* 081
75	082	083	084
82	085	086	087
91	088	089	090
100	091	092	093
110	094	095	096
120	097	098	099
130	100	101	102
150	103	104	105
160	106	107	108
180	109	110	111
200	112	113	114
300 Volts**	±1%	±2%	±5%
220	115	116	117
240	118	119	120
270	121	122	123
300	124	125	126
CYR15 M23269/02-			
500 Volts**	±1%	±2%	±5%
220	* 001	* 002	* 003
240	004	005	006
270	007	008	009
300	010	011	012
330	013	014	015
360	016	017	018
390	019	020	021
430	022	023	024
470	025	026	027
510	028	029	030
300 Volts**	±1%	±2%	±5%
560	031	032	033
620	034	035	036
680	037	038	039
750	040	041	042
820	043	044	045
910	046	047	048
1,000	049	050	051
1,100	052	053	054
1,200	055	056	057

* Add first digit to indicate failure rate.

** S LEVEL = 100V rating for all values.

Cap. Value (pF)	Part Number* Capacitance Tolerance		
CYR20 M23269/03-			
500 Volts**	±1%	±2%	±5%
560	* 001	* 002	* 003
620	004	005	006
680	007	008	009
750	010	011	012
820	013	014	015
910	016	017	018
1,000	019	020	021
1,100	022	023	024
1,200	025	026	027
1,300	028	029	030
1,500	031	032	033
1,600	034	035	036
1,800	037	038	039
2,000	040	041	042
2,200	043	044	045
2,400	046	047	048
2,700	049	050	051
3,000	052	053	054
3,300	055	056	057
300 Volts**	±1%	±2%	±5%
3,600	3058	3059	3060
3,900	3061	3062	3063
4,300	3064	3065	3066
4,700	3067	3068	3069
5,100	3070	3071	3072
CYR30 M23269/04-			
500 Volts**	±1%	±2%	±5%
3,600	* 001	* 002	* 003
3,900	004	005	006
4,300	007	008	009
4,700	010	011	012
5,100	013	014	015
5,600	016	017	018
6,200	019	020	021
300 Volts**	±1%	±2%	±5%
6,800	3022	3023	3024
7,500	3025	3026	3027
8,200	3028	3029	3030
9,100	3031	3032	3033
10,000	3034	3035	3036

* Add first digit to indicate failure rate.

** S LEVEL = 100V rating for all values.

