

Glass Capacitors

CYR10, 15 (Established Reliability)

M23269/01, 02 (QPL to MIL-PRF-23269)



FAILURE RATE LEVELS M AND S

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/ $^{\circ}\text{C}$ from -55°C to $+125^{\circ}\text{C}$. 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

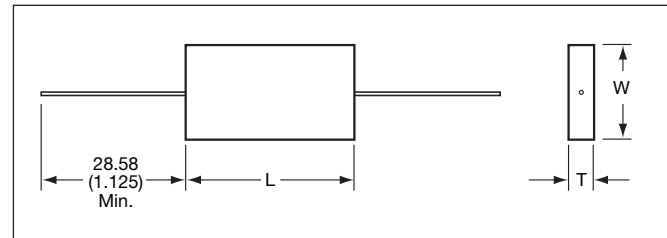
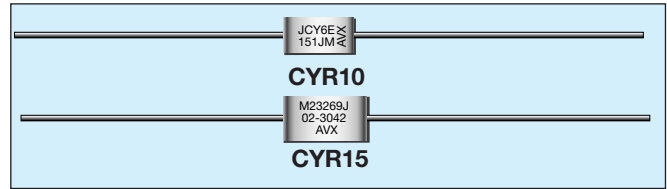
Insulation Resistance: A minimum of 100,000 megohms at 25°C and 10,000 megohms at 125°C .

Voltage/Temperature Rating: Voltage ratings are shown in the part number tables. The operating temperature range is -55°C to $+125^{\circ}\text{C}$.

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 $\text{cm}^{-2}\text{sec}^{-1}$ 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. $+0.1(+0.004)$ $-0.03(\pm 0.001)$
CYR10	8.74 ± 1.19 (0.344 ± 0.047)	$4.37 \pm .79$ (0.172 ± 0.031)	$1.98 \pm .79$ (0.078 ± 0.031)	.51 (0.020)
CYR15	11.91 ± 1.19 (0.469 ± 0.047)	$6.76 \pm .79$ (0.266 ± 0.031)	2.77 ± 1.19 (0.109 ± 0.047)	.51 (0.020)

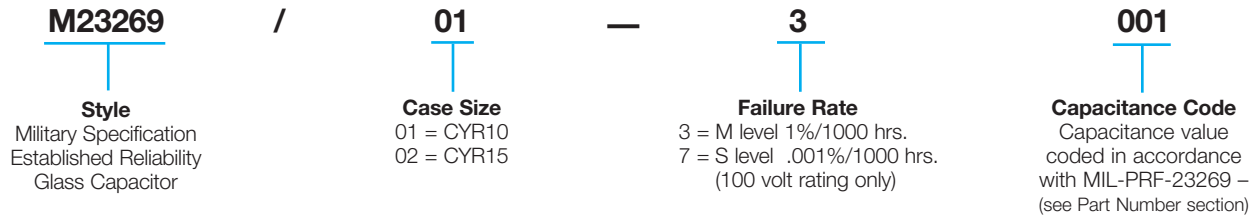
Note: Standard leads are solder-coated Dumet.

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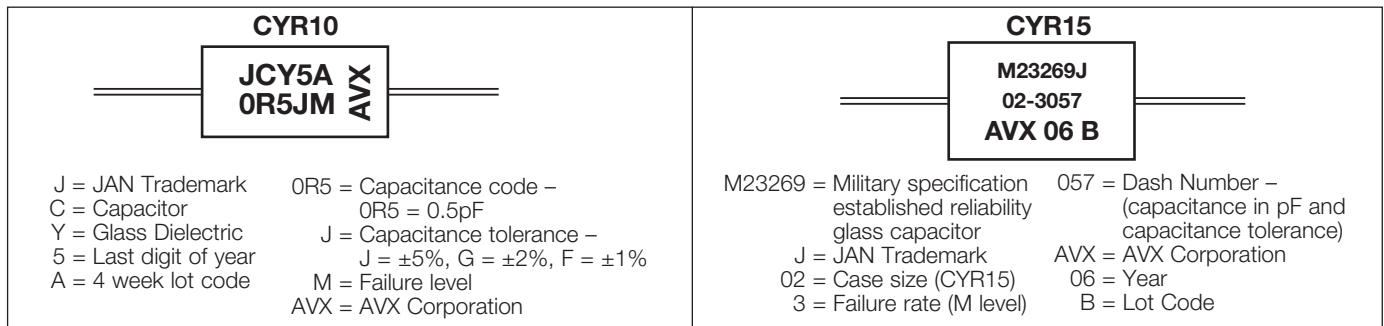
Part Numbers and Ordering Information



HOW TO ORDER



MARKING



RATINGS & PART NUMBER REFERENCE

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.

