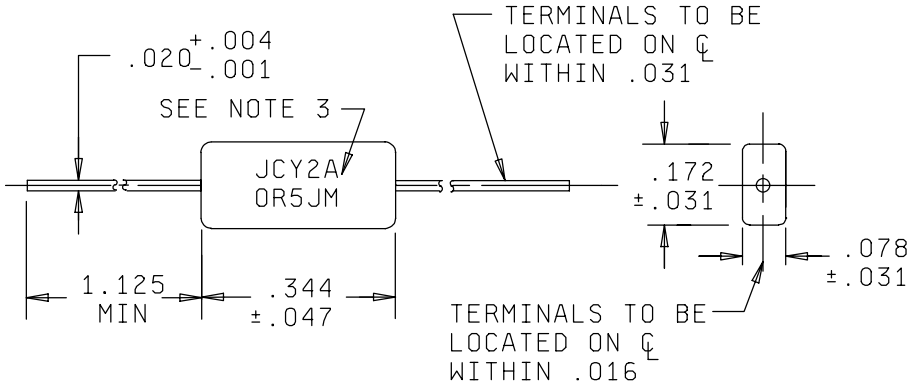
INCH-POUND
MIL-PRF-23269/1G
10 June 1999
SUPERSEDING
MIL-C-23269/1F
4 February 1993

PERFORMANCE SPECIFICATION SHEET

CAPACITORS, FIXED, GLASS DIELECTRIC, (AXIAL WIRE-LEAD TERMINALS), ESTABLISHED RELIABILITY, STYLE CYR10

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-23269.



Inches	mm	Inches	mm
.001	0.03	.047	1.19
.004	0.10	.078	1.98
.016	0.41	.172	4.37
.020	0.51	.344	8.74
.031	0.79	1.125	28.58

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. See marking requirement.

FIGURE 1. Dimensions and configurations.

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1.

Case material: Glass.

Terminals: Solderable.

Capacitance (nominal): See table I.

Capacitance tolerance: See table I.

Rated voltage: See table I.

Failure rate level (FRL): M, P, R, or S.

Rated temperature: -55°C to +125°C.

Temperature coefficient: 140 parts per million (ppm)/°C ±25 ppm/°C.

Capacitance drift: 0.1 percent or 0.1 pF, whichever is greater.

Seal: Hermetic.

Seal: Test I.

Insulation resistance: 10,000 megohms or 200-ohm-farads minimum (qualification inspection only at +125°C). 100,000 megohms minimum (at 25°C).

Dissipation factor (DF): 0.1 percent maximum.

Thermal shock and moisture resistance:

DF: 0.1 percent maximum.

Quality factor (Q): In accordance with MIL-PRF-23269.

Life:

ΔCapacitance (240 hours and 2,000 hours): 0.5 percent or 0.5 pF maximum.

DF (240 hours and 2,000 hours): 0.15 percent maximum.

Marking:

"J" Brand	Capacitor indicator	Dielectric indicator	Last digit of year code	Sequential 4-week lot code
J	C	Y	2	A
O	R	5	J	M
Capacitance code			Capacitance tolerance code	Failure rate level code (%/1,000 hours)

C = ±0.25 pF
D = ±0.5 pF
F = ±1 percent
G = ±2 percent
J = ±5 percent

M = 1.0
P = 0.1
R = 0.01
S = 0.001

Substitutability data: See table II.

TABLE I. Electrical and physical characteristics and dash numbers.

Capacitance (pF)	Capacitance tolerance	Dash number M23269/01- FRL in percent/1,000 hours				
		500 V dc				100 V dc
		M (1.0)	P (0.1)	R (0.01)	S (0.001)	S (0.001) 1/
0.5	±0.25 pF	3001	4001	5001	6001	7001
1.0	±0.25 pF	3002	4002	5002	6002	7002
1.5	±0.25 pF	3003	4003	5003	6003	7003
2.2	±0.25 pF	3004	4004	5004	6004	7004
2.2	±0.50 pF	3005	4005	5005	6005	7005
2.7	±0.25 pF	3006	4006	5006	6006	7006
3.0	±0.25 pF	3007	4007	5007	6007	7007
3.0	±0.50 pF	3008	4008	5008	6008	7008
3.3	±0.25 pF	3009	4009	5009	6009	7009
3.6	±0.25 pF	3010	4010	5010	6010	7010
3.6	±0.50 pF	3011	4011	5011	6011	7011
3.9	±0.25 pF	3012	4012	5012	6012	7012
4.3	±0.25 pF	3013	4013	5013	6013	7013
4.3	±0.50 pF	3014	4014	5014	6014	7014
4.7	±0.25 pF	3015	4015	5015	6015	7015
5.1	±0.25 pF	3016	4016	5016	6016	7016
5.6	±0.25 pF	3017	4017	5017	6017	7017
5.6	±5%	3018	4018	5018	6018	7018

See footnote at end of table.

TABLE I. Electrical and physical characteristics and dash numbers - Continued.

Capacitance (pF)	Capacitance tolerance	Dash number M23269/01- FRL in percent/1,000 hours				
		500 V dc				100 V dc
		M (1.0)	P (0.1)	R (0.01)	S (0.001)	S (0.001) 1/
6.2	±0.25 pF	3019	4019	5019	6019	7019
6.2	±5%	3020	4020	5020	6020	7020
6.8	±0.25 pF	3021	4021	5021	6021	7021
6.8	±5%	3022	4022	5022	6022	7022
7.5	±0.25 pF	3023	4023	5023	6023	7023
7.5	±5%	3024	4024	5024	6024	7024
8.2	±0.25 pF	3025	4025	5025	6025	7025
8.2	±5%	3026	4026	5026	6026	7026
9.1	±0.25 pF	3027	4027	5027	6027	7027
9.1	±5%	3028	4028	5028	6028	7028
10	±0.25 pF	3029	4029	5029	6029	7029
10	±5%	3030	4030	5030	6030	7030
11	±0.25 pF	3031	4031	5031	6031	7031
11	±5%	3032	4032	5032	6032	7032
12	±0.25 pF	3033	4033	5033	6033	7033
12	±5%	3034	4034	5034	6034	7034
13	±2%	3035	4035	5035	6035	7035
13	±5%	3036	4036	5036	6036	7036
15	±2%	3037	4037	5037	6037	7037
15	±5%	3038	4038	5038	6038	7038
16	±2%	3039	4039	5039	6039	7039
16	±5%	3040	4040	5040	6040	7040
18	±2%	3041	4041	5041	6041	7041
18	±5%	3042	4042	5042	6042	7042
20	±2%	3043	4043	5043	6043	7043
20	±5%	3044	4044	5044	6044	7044
22	±2%	3045	4045	5045	6045	7045
22	±5%	3046	4046	5046	6046	7046
24	±2%	3047	4047	5047	6047	7047
24	±5%	3048	4048	5048	6048	7048
27	±1%	3049	4049	5049	6049	7049
27	±2%	3050	4050	5050	6050	7050
27	±5%	3051	4051	5051	6051	7051
30	±1%	3052	4052	5052	6052	7052
30	±2%	3053	4053	5053	6053	7053
30	±5%	3054	4054	5054	6054	7054

See footnote at end of table.

TABLE I. Electrical and physical characteristics and dash numbers - Continued.

Capacitance (pF)	Capacitance tolerance	Dash number M23269/01- FRL in percent/1,000 hours				
		500 V dc				100 V dc
		M (1.0)	P (0.1)	R (0.01)	S (0.001)	S (0.001) 1/
33	±1%	3055	4055	5055	6055	7055
33	±2%	3056	4056	5056	6056	7056
33	±5%	3057	4057	5057	6057	7057
36	±1%	3058	4058	5058	6058	7058
36	±2%	3059	4059	5059	6059	7059
36	±5%	3060	4060	5060	6060	7060
39	±1%	3061	4061	5061	6061	7061
39	±2%	3062	4062	5062	6062	7062
39	±5%	3063	4063	5063	6063	7063
43	±1%	3064	4064	5064	6064	7064
43	±2%	3065	4065	5065	6065	7065
43	±5%	3066	4066	5066	6066	7066
47	±1%	3067	4067	5067	6067	7067
47	±2%	3068	4068	5068	6068	7068
47	±5%	3069	4069	5069	6069	7069
51	±1%	3070	4070	5070	6070	7070
51	±2%	3071	4071	5071	6071	7071
51	±5%	3072	4072	5072	6072	7072
56	±1%	3073	4073	5073	6073	7073
56	±2%	3074	4074	5074	6074	7074
56	±5%	3075	4075	5075	6075	7075
62	±1%	3076	4076	5076	6076	7076
62	±2%	3077	4077	5077	6077	7077
62	±5%	3078	4078	5078	6078	7078
68	±1%	3079	4079	5079	6079	7079
68	±2%	3080	4080	5080	6080	7080
68	±5%	3081	4081	5081	6081	7081
75	±1%	3082	4082	5082	6082	7082
75	±2%	3083	4083	5083	6083	7083
75	±5%	3084	4084	5084	6084	7084
82	±1%	3085	4085	5085	6085	7085
82	±2%	3086	4086	5086	6086	7086
82	±5%	3087	4087	5087	6087	7087
91	±1%	3088	4088	5088	6088	7088
91	±2%	3089	4089	5089	6089	7089
91	±5%	3090	4090	5090	6090	7090
100	±1%	3091	4091	5091	6091	7091
100	±2%	3092	4092	5092	6092	7092
100	±5%	3093	4093	5093	6093	7093

See footnote at end of table.

TABLE I. Electrical and physical characteristics and dash numbers - Continued.

Capacitance (pF)	Capacitance tolerance	Dash number M23269/01- FRL in percent/1,000 hours				
		500 V dc				100 V dc
		M (1.0)	P (0.1)	R (0.01)	S (0.001)	S (0.001) 1/
110	±1%	3094	4094	5094	6094	7094
110	±2%	3095	4095	5095	6095	7095
110	±5%	3096	4096	5096	6096	7096
120	±1%	3097	4097	5097	6097	7097
120	±2%	3098	4098	5098	6098	7098
120	±5%	3099	4099	5099	6099	7099
130	±1%	3100	4100	5100	6100	7100
130	±2%	3101	4101	5101	6101	7101
130	±5%	3102	4102	5102	6102	7102
150	±1%	3103	4103	5103	6103	7103
150	±2%	3104	4104	5104	6104	7104
150	±5%	3105	4105	5105	6105	7105
160	±1%	3106	4106	5106	6106	7106
160	±2%	3107	4107	5107	6107	7107
160	±5%	3108	4108	5108	6108	7108
180	±1%	3109	4109	5109	6109	7109
180	±2%	3110	4110	5110	6110	7110
180	±5%	3111	4111	5111	6111	7111
200	±1%	3112	4112	5112	6112	7112
200	±2%	3113	4113	5113	6113	7113
200	±5%	3114	4114	5114	6114	7114
		300 V dc				100 V dc
220	±1%	3115	4115	5115	6115	7115
220	±2%	3116	4116	5116	6116	7116
220	±5%	3117	4117	5117	6117	7117
240	±1%	3118	4118	5118	6118	7118
240	±2%	3119	4119	5119	6119	7119
240	±5%	3120	4120	5120	6120	7120
270	±1%	3121	4121	5121	6121	7121
270	±2%	3122	4122	5122	6122	7122
270	±5%	3123	4123	5123	6123	7123
300	±1%	3124	4124	5124	6124	7124
300	±2%	3125	4125	5125	6125	7125
300	±5%	3126	4126	5126	6126	7126

1/ Sixth power rule applies for derating at 0.5 $\frac{\text{operating}}{\text{rated}}$ voltage ratios and below.

TABLE II. Substitutability data.

Superseded type designation in MIL-C-23269/1B	Use dash number M23269/01- in M23269/1C through /1F FRL in percent/1,000 hours		Superseded type designation in MIL-C-23269/1B	Use dash number M23269/01- in M23269/1C through /1F FRL in percent/1,000 hours	
	L (2.0)	M (1.0)		L (2.0)	M (1.0)
CYR10C0R5C	2001	3001	CYR10C300F	2052	3052
CYR10C1R0C	2002	3002	CYR10C300G	2053	3053
CYR10C1R5C	2003	3003	CYR10C300J	2054	3054
CYR10C2R2C	2004	3004	CYR10C330F	2055	3055
CYR10C2R2D	2005	3005	CYR10C330G	2056	3056
CYR10C2R7C	2006	3006	CYR10C330J	2057	3057
CYR10C3R0C	2007	3007	CYR10C360F	2058	3058
CYR10C3R0D	2008	3008	CYR10C360G	2059	3059
CYR10C3R3C	2009	3009	CYR10C360J	2060	3060
CYR10C3R6C	2010	3010	CYR10C390F	2061	3061
CYR10C3R6D	2011	3011	CYR10C390G	2062	3062
CYR10C3R9C	2012	3012	CYR10C390J	2063	3063
CYR10C4R3C	2013	3013	CYR10C430F	2064	3064
CYR10C4R3D	2014	3014	CYR10C430G	2065	3065
CYR10C4R7C	2015	3015	CYR10C430J	2066	3066
CYR10C5R1C	2016	3016	CYR10C470F	2067	3067
CYR10C5R6C	2017	3017	CYR10C470G	2068	3068
CYR10C5R6J	2018	3018	CYR10C470J	2069	3069
CYR10C6R2C	2019	3019	CYR10C510F	2070	3070
CYR10C6R2J	2020	3020	CYR10C510G	2071	3071
CYR10C6R8C	2021	3021	CYR10C510J	2072	3072
CYR10C6R8J	2022	3022	CYR10C560F	2073	3073
CYR10C7R5C	2023	3023	CYR10C560G	2074	3074
CYR10C7R5J	2024	3024	CYR10C560J	2075	3075
CYR10C8R2C	2025	3025	CYR10C620F	2076	3076
CYR10C8R2J	2026	3026	CYR10C620G	2077	3077
CYR10C9R1C	2027	3027	CYR10C620J	2078	3078
CYR10C9R1J	2028	3028	CYR10C680F	2079	3079
CYR10C100C	2029	3029	CYR10C680G	2080	3080
CYR10C100J	2030	3030	CYR10C680J	2081	3081
CYR10C110C	2031	3031	CYR10C750F	2082	3082
CYR10C110J	2032	3032	CYR10C750G	2083	3083
CYR10C120C	2033	3033	CYR10C750J	2084	3084
CYR10C120J	2034	3034	CYR10C820F	2085	3085
CYR10C130G	2035	3035	CYR10C820G	2086	3086
CYR10C130J	2036	3036	CYR10C820J	2087	3087
CYR10C150G	2037	3037	CYR10C910F	2088	3088
CYR10C150J	2038	3038	CYR10C910G	2089	3089
CYR10C160G	2039	3039	CYR10C910J	2090	3090
CYR10C160J	2040	3040	CYR10C101F	2091	3091
CYR10C180G	2041	3041	CYR10C101G	2092	3092
CYR10C180J	2042	3042	CYR10C101J	2093	3093
CYR10C200G	2043	3043	CYR10C111F	2094	3094
CYR10C200J	2044	3044	CYR10C111G	2095	3095
CYR10C220G	2045	3045	CYR10C111J	2096	3096
CYR10C220J	2046	3046	CYR10C121F	2097	3097
CYR10C240G	2047	3047	CYR10C121G	2098	3098
CYR10C240J	2048	3048	CYR10C121J	2099	3099

TABLE II. Substitutability data - Continued.

Superseded type designation in MIL-C-23269/1B	Use dash number M23269/01- in M23269/1C through /1F		Superseded type designation in MIL-C-23269/1B	Use dash number M23269/01- in M23269/1C through /1F	
	FRL in percent/1,000 hours			FRL in percent/1,000 hours	
	L (2.0)	M (1.0)		L (2.0)	M (1.0)
CYR10C270F	2049	3049	CYR10C131F	2100	3100
CYR10C270G	2050	3050	CYR10C131G	2101	3101
CYR10C270J	2051	3051	CYR10C131J	2102	3102
CYR10C151F	2103	3103	CYR10C221F	2115	3115
CYR10C151G	2104	3104	CYR10C221G	2116	3116
CYR10C151J	2105	3105	CYR10C221J	2117	3117
CYR10C161F	2106	3106	CYR10C241F	2118	3118
CYR10C161G	2107	3107	CYR10C241G	2119	3119
CYR10C161J	2108	3108	CYR10C241J	2120	3120
CYR10C181F	2109	3109	CYR10C271F	2121	3121
CYR10C181G	2110	3110	CYR10C271G	2122	3122
CYR10C181J	2111	3111	CYR10C271J	2123	3123
CYR10C201F	2112	3112	CYR10C301F	2124	3124
CYR10C201G	2113	3113	CYR10C301G	2125	3125
CYR10C201J	2114	3114	CYR10C301J	2126	3126

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Army - CR
Navy - EC
Air Force - 11
DLA - CC

Review activities:
Navy - AS, CG, MC, OS, SH
Air Force - 17, 19

Preparing activity:
DLA - CC

(Project 5910-2024-01)