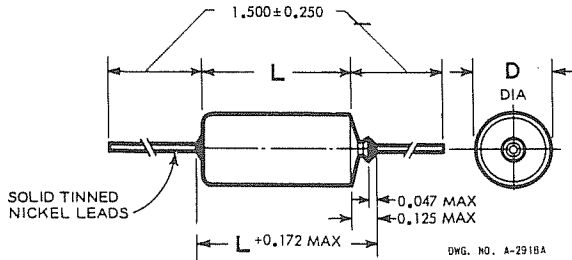
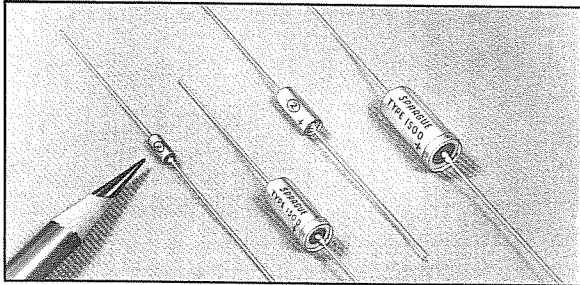


TYPE 150D TANTALEX® SOLID-TANTALUM CAPACITORS



DIMENSIONS (in inches)*

Size Code	D	L
A	0.135	0.286
B	0.185	0.474
R	0.289	0.686
S	0.351	0.786

- Hermetically sealed metal cases.
- Recommended for industrial, military, and commercial applications.
- For capacitors which meet requirements of MIL-C-39003, see pages 18-21.
- Capacitors listed have outer plastic-film insulation. For bare case, change last character of catalog number from 2 to 0 and

subtract .010" from diameter and .036" from length.

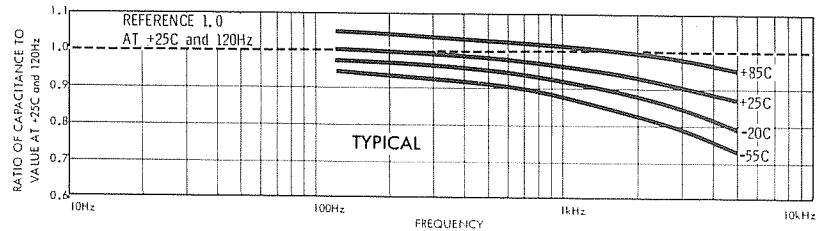
- Capacitors listed have capacitance tolerance of ±10%. Units with star (*) are also available with tolerance of ±20%. For tolerance of ±20%, change X9 in middle of catalog number to X0.
- For complete technical data, refer to latest issue of Engineering Bulletin 3520.

PERFORMANCE CHARACTERISTICS

- Operating Temperature Range:** -80°C to +85°C; to +125°C with voltage derating.
- Capacitance Tolerance:** ±10%, ±20%.
- Dissipation Factor:** (At 25°C) 6 through 20 WVDC capacitors, 2 to 8%; 35 through 100 WVDC capacitors, 2 to 6%; 125 WVDC capacitors, 2 to 4%.
- Leakage Current:** Max. d-c leakage current at 25°C is: capacitors in size code A, .5 to

- 1.5 μA; size code B, .9 to 5 μA; size code R, 2.5 to 12 μA; size code S, 7.5 to 20 μA.
- Life Test:** (At 85°C) Capacitors are capable of withstanding a 2000 hour life test at rated d-c working voltage. After life test, leakage current shall not be less than 2 μA, dissipation factor shall meet initial requirement, and capacitance at 25°C shall not have changed by more than ±10% from initial value.

CAPACITANCE vs. FREQUENCY/TEMPERATURE



μF	Size Code	Catalog Number	μF	Size Code	Catalog Number	μF	Size Code	Catalog Number	μF	Size Code	Catalog Number
6 WVDC, 8 VDC SURGE											
.22	A	150D224X9006A2*	100	R	150D107X9006R2*	33	B	150D336X9010B2*	12	B	150D126X9015B2
.27	A	150D274X9006A2	120	R	150D127X9006R2*	39	B	150D396X9010B2	15	B	150D156X9015B2*
.33	A	150D334X9006A2*	150	R	150D157X9006R2*	47	R	150D476X9010R2*	18	B	150D186X9015B2
.39	A	150D394X9006A2	180	R	150D187X9006R2*	56	R	150D566X9010R2	22	B	150D226X9015B2*
.47	A	150D474X9006A2*	220	S	150D227X9006S2*	68	R	150D686X9010R2*	27	R	150D276X9015R2
.56	A	150D564X9006A2	270	S	150D277X9006S2*	82	R	150D826X9010R2			
.68	A	150D684X9006A2*	330	S	150D337X9006S2*				33	R	150D336X9015R2*
.82	A	150D824X9006A2	10 WVDC, 13 VDC SURGE								
1.0	A	150D105X9006A2*	.22	A	150D224X9010A2*	100	R	150D107X9010R2*	39	R	150D396X9015R2
1.2	A	150D125X9006A2	.27	A	150D274X9010A2	120	R	150D127X9010R2*	47	R	150D476X9015R2*
1.5	A	150D155X9006A2*	.33	A	150D334X9010A2*	150	S	150D157X9010S2*	56	R	150D566X9015R2
1.8	A	150D185X9006A2	.39	A	150D394X9010A2	180	S	150D187X9010S2*	68	R	150D686X9015R2*
2.2	A	150D225X9006A2*	.47	A	150D474X9010A2*	220	S	150D227X9010S2*	82	S	150D826X9015S2
2.7	A	150D275X9006A2	.56	A	150D564X9010A2	15 WVDC, 20 VDC SURGE					
3.3	A	150D335X9006A2*	.68	A	150D684X9010A2*	.22	A	150D224X9015A2*	100	S	150D107X9015S2*
3.9	A	150D395X9006A2	.82	A	150D824X9010A2	.27	A	150D274X9015A2	120	S	150D127X9015S2
4.7	A	150D475X9006A2*	1.0	A	150D105X9010A2*	.33	A	150D334X9015A2*	150	S	150D157X9015S2*
5.6	A	150D565X9006A2	1.2	A	150D125X9010A2	.39	A	150D394X9015A2	20 WVDC, 23 VDC SURGE		
6.8	A	150D685X9006A2*	1.5	A	150D155X9010A2*	.47	A	150D474X9015A2*	.0047	A	150D472X9020A2*
8.2	B	150D825X9006B2	1.8	A	150D185X9010A2	.56	A	150D564X9015A2	.0056	A	150D562X9020A2
10	B	150D106X9006B2*	2.2	A	150D225X9010A2*	.68	A	150D684X9015A2*	.0068	A	150D682X9020A2*
12	B	150D126X9006B2	2.7	A	150D275X9010A2	.82	A	150D824X9015A2	.0082	A	150D822X9020A2
15	B	150D156X9006B2*	3.3	A	150D335X9010A2*	1.0	A	150D105X9015A2*	.01	A	150D103X9020A2*
18	B	150D186X9006B2	3.9	A	150D395X9010A2	1.2	A	150D125X9015A2	.012	A	150D123X9020A2
22	B	150D226X9006B2*	4.7	A	150D475X9010A2*	1.5	A	150D155X9015A2*	.015	A	150D153X9020A2*
27	B	150D276X9006B2	5.6	B	150D565X9010B2	1.8	A	150D185X9015A2	.018	A	150D183X9020A2
			6.8	B	150D685X9010B2*	2.2	A	150D225X9015A2*	.022	A	150D223X9020A2*
			8.2	B	150D825X9010B2	2.7	A	150D275X9015A2	.027	A	150D273X9020A2
33	B	150D336X9006B2*	10	B	150D106X9010B2*				.033	A	150D333X9020A2*
39	B	150D396X9006B2	12	B	150D126X9010B2	3.3	A	150D335X9015A2*	.039	A	150D393X9020A2
47	B	150D476X9006B2*	15	B	150D156X9010B2*	3.9	B	150D395X9015B2	.047	A	150D473X9020A2*
56	B	150D566X9006B2	18	B	150D186X9010B2	4.7	B	150D475X9015B2*	.056	A	150D563X9020A2
			22	B	150D226X9010B2*	5.6	B	150D565X9015B2	.068	A	150D683X9020A2*
			27	B	150D276X9010B2	6.8	B	150D685X9015B2*	.082	A	150D823X9020A2
						8.2	B	150D825X9015B2	.10	A	150D104X9020A2*
						10	B	150D106X9015B2*	.12	A	150D124X9020A2
									.15	A	150D154X9020A2*



TYPE 150D TANTALEX® SOLID-TANTALUM CAPACITORS, continued

μ F	Size Code	Catalog Number	μ F	Size Code	Catalog Number	μ F	Size Code	Catalog Number	μ F	Size Code	Catalog Number
.18	A	150D184X9020A2	.27	A	150D274X9035A2	1.0	A	150D105X9050A2*	3.9	B	150D395X9060B2
.22	A	150D224X9020A2*	.33	A	150D334X9035A2*	1.2	B	150D125X9050B2	4.7	R	150D475X9060R2*
.27	A	150D274X9020A2	.39	A	150D394X9035A2	1.5	B	150D155X9050B2*			
.33	A	150D334X9020A2*	.47	A	150D474X9035A2*	1.8	B	150D185X9050B2	5.6	R	150D565X9060R2
.39	A	150D394X9020A2	.56	A	150D564X9035A2	2.2	B	150D225X9050B2*	6.8	R	150D685X9060R2*
.47	A	150D474X9020A2*	.68	A	150D684X9035A2*	2.7	B	150D275X9050B2	8.2	R	150D825X9060R2
.56	A	150D564X9020A2	.82	A	150D824X9035A2	3.3	B	150D335X9050B2*	10	R	150D106X9060R2*
.68	A	150D684X9020A2*	1.0	A	150D105X9035A2*	3.9	B	150D395X9050B2	12	S	150D126X9060S2
.82	A	150D824X9020A2	1.2	B	150D125X9035B2	4.7	B	150D475X9050B2*	15	S	150D156X9060S2*
1.0	A	150D105X9020A2*	1.5	B	150D155X9035B2*	5.6	R	150D565X9050R2	18	S	150D186X9060S2
1.2	A	150D125X9020A2	1.8	B	150D185X9035B2	6.8	R	150D685X9050R2*	22	S	150D226X9060S2*
1.5	A	150D155X9020A2*	2.2	B	150D225X9035B2*	8.2	R	150D825X9050R2			
1.8	A	150D185X9020A2	2.7	B	150D275X9035B2	10	R	150D106X9050R2*	75 WVDC, 98 VDC SURGE		
2.2	A	150D225X9020A2*	3.3	B	150D335X9035B2*	12	R	150D126X9050R2	.0047	A	150D472X9075A2*
2.7	B	150D275X9020B2	3.9	B	150D395X9035B2	15	R	150D156X9050R2*	.0056	A	150D562X9075A2
3.3	B	150D335X9020B2*	4.7	B	150D475X9035B2*	18	R	150D186X9050R2	.0068	A	150D682X9075A2*
3.9	B	150D395X9020B2	5.6	B	150D565X9035B2	22	S	150D226X9050S2*	.0082	A	150D822X9075A2
4.7	B	150D475X9020B2*	6.8	B	150D685X9035B2*				.01	A	150D103X9075A2*
5.6	B	150D565X9020B2	8.2	R	150D825X9035R2				.012	A	150D123X9075A2
6.8	B	150D685X9020B2*	10	R	150D106X9035R2*				.015	A	150D153X9075A2*
8.2	B	150D825X9020B2	12	R	150D126X9035R2				.018	A	150D183X9075A2
10	B	150D106X9020B2*	15	R	150D156X9035R2*				.022	A	150D223X9075A2*
12	B	150D126X9020B2	18	R	150D186X9035R2				.027	A	150D273X9075A2
15	B	150D156X9020B2*	22	R	150D226X9035R2*				.033	A	150D333X9075A2*
18	R	150D186X9020R2	27	S	150D276X9035S2				.039	A	150D393X9075A2
22	R	150D226X9020R2*	33	S	150D336X9035S2*				.047	A	150D473X9075A2*
27	R	150D276X9020R2	39	S	150D396X9035S2				.056	A	150D563X9075A2
33	R	150D336X9020R2*	47	S	150D476X9035S2*				.068	A	150D683X9075A2*
39	R	150D396X9020R2							.082	A	150D823X9075A2
47	R	150D476X9020R2*							.01	A	150D104X9075A2*
56	S	150D566X9020S2							.012	A	150D124X9075A2
68	S	150D686X9020S2*							.015	A	150D154X9075A2*
82	S	150D826X9020S2							.018	A	150D184X9075A2
100	S	150D107X9020S2*							.022	A	150D224X9075A2*
									.027	A	150D274X9075A2
									.033	A	150D334X9075A2*
									.039	A	150D394X9075A2
									.047	A	150D474X9075A2*
									.056	A	150D564X9075A2
									.068	A	150D684X9075A2*
									.082	B	150D824X9075B2
									.1	A	150D105X9075B2*
									.12	B	150D125X9075B2
									.15	B	150D155X9075B2*
									.18	A	150D185X9075B2
									.22	B	150D225X9075B2*
									.27	B	150D275X9075B2
									.33	A	150D335X9075R2
									.39	R	150D395X9075R2*
									.47	R	150D475X9075R2*
									.56	R	150D565X9075R2
									.68	R	150D685X9075R2*
									.82	R	150D825X9075R2*
									1.0	B	150D106X9075B2*
									1.2	B	150D126X9075B2
									1.5	B	150D156X9075B2*
									1.8	B	150D186X9075B2
									2.2	B	150D226X9075B2*
									2.7	B	150D276X9075B2
									3.3	B	150D336X9075B2*
									3.9	B	150D396X9075B2*
									4.7	B	150D476X9075B2*
									5.6	B	150D566X9075B2
									6.8	B	150D686X9075B2*
									8.2	B	150D826X9075B2*
									10	B	150D107X9075B2*
									12	B	150D127X9075B2
									15	B	150D157X9075B2*
									18	B	150D187X9075B2
									22	B	150D227X9075B2*
									27	B	150D277X9075B2
									33	B	150D337X9075B2*
									39	B	150D397X9075B2*
									47	B	150D477X9075B2*

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*For conversion to millimetres, use basis of 1" = 25.4 mm

Sizes subject to change without notice



TYPE 150D TANTALEX® SOLID-TANTALUM CAPACITORS, continued

μF	Size Code	Catalog Number	μF	Size Code	Catalog Number	μF	Size Code	Catalog Number	μF	Size Code	Catalog Number
100 WVDC, 130 VDC SURGE			.1	A	150D104X9100A2*	5.6	R	150D565X9100R2	.068	A	150D683X9125A2*
			.12	A	150D124X9100A2	6.8	R	150D685X9100R2*	.082	A	150D823X9125A2
.0047	A	150D472X9100A2*	.15	A	150D154X9100A2*	125 WVDC, 140 VDC SURGE			.1	A	150D104X9125A2*
.0056	A	150D562X9100A2	.18	A	150D184X9100A2	.0047	A	150D472X9125A2*	.12	A	150D124X9125A2
.0068	A	150D682X9100A2*	.22	A	150D224X9100A2*	.0056	A	150D562X9125A2	.15	A	150D154X9125A2*
.0082	A	150D822X9100A2	.27	A	150D274X9100A2	.0068	A	150D682X9125A2*	.18	A	150D184X9125A2
.01	A	150D103X9100A2*	.33	A	150D334X9100A2*	.0082	A	150D822X9125A2	.22	A	150D224X9125A2*
.012	A	150D123X9100A2	.39	A	150D394X9100A2	.01	A	150D103X9125A2*	.27	A	150D274X9125A2
.015	A	150D153X9100A2*	.47	A	150D474X9100A2*	.012	A	150D123X9125A2	.33	A	150D334X9125A2*
.018	A	150D183X9100A2	.56	A	150D564X9100A2	.015	A	150D153X9125A2*	.39	A	150D394X9125A2
.022	A	150D223X9100A2*	.68	B	150D684X9100B2*	.018	A	150D183X9125A2	.47	A	150D474X9125A2*
.027	A	150D273X9100A2	.82	B	150D824X9100B2	.022	A	150D223X9125A2*	.56	B	150D564X9125B2
.033	A	150D333X9100A2*	1.0	B	150D105X9100B2*	.027	A	150D273X9125A2	.68	B	150D684X9125B2*
.039	A	150D393X9100A2	1.2	B	150D125X9100B2	.033	A	150D333X9125A2*	.82	B	150D824X9125B2
.047	A	150D473X9100A2*	1.5	B	150D155X9100B2*	.039	A	150D393X9125A2	1.0	B	150D105X9125B2*
.056	A	150D563X9100A2	1.8	B	150D185X9100B2	.047	A	150D473X9125A2*	1.2	B	150D125X9125B2
.068	A	150D683X9100A2*	2.2	B	150D225X9100B2*	.056	A	150D563X9125A2	1.5	B	150D155X9125B2*
.082	A	150D823X9100A2	2.7	B	150D275X9100B2	.068	A	150D683X9125A2*	1.8	B	150D185X9125B2
			3.3	R	150D335X9100R2*	.082	A	150D823X9125A2*	2.2	B	150D225X9125B2*
			3.9	R	150D395X9100R2						
			4.7	R	150D475X9100R2*						

EXTENDED-RANGE TYPE 152D TANTALEX® CAPACITORS

• Extended capacitance ratings (higher capacitance values in smaller case sizes) required in some new equipment designs. • Available at premium prices.

μF	Size Code	Catalog Number	μF	Size Code	Catalog Number	μF	Size Code	Catalog Number	μF	Size Code	Catalog Number
6 WVDC, 8 VDC SURGE			82	B	152D826X9010B2	20 WVDC, 26 VDC SURGE			82	S	152D826X9030S2
			150	R	152D157X9010R2*				100	S	152D107X9030S2*
			180	R	152D187X9010R2	2.7	A	152D275X9020A2	35 WVDC, 46 VDC SURGE		
10	A	152D106X9006A2*	220	R	152D227X9010R2*	3.3	A	152D335X9020A2*	1.2	A	152D125X9035A2
12	A	152D126X9006A2	270	R	152D277X9010R2	3.9	A	152D395X9020A2	1.5	A	152D155X9035A2*
15	A	152D156X9006A2*	15 WVDC, 20 VDC SURGE			4.7	A	152D475X9020A2*	1.8	A	152D185X9035A2
68	B	152D686X9006B2*	3.9	S	152D337X9010S2*	18	B	152D186X9020B2	8.2	B	152D825X9035B2
82	B	152D826X9006B2	390	S	152D397X9010S2	22	B	152D226X9020B2*	10	B	152D106X9035B2*
100	B	152D107X9006B2*	470	S	152D477X9010S2*	27	B	152D276X9020B2	27	R	152D276X9035R2
330	R	152D337X9006R2*	560	S	152D567X9010S2	56	R	152D566X9020R2	33	R	152D336X9035R2*
390	R	152D397X9006R2	30 WVDC, 39 VDC SURGE			68	R	152D686X9020R2*	39	R	152D396X9035R2
470	R	152D477X9006R2*	3.9	A	152D395X9015A2	82	R	152D826X9020R2	47	R	152D476X9035R2*
560	S	152D567X9006S2	4.7	A	152D475X9015A2*	100	R	152D107X9020R2*	56	S	152D566X9035S2
680	S	152D687X9006S2*	5.6	A	152D565X9015A2	120	R	152D127X9020R2	68	S	152D686X9035S2*
820	S	152D827X9006S2	6.8	A	152D685X9015A2*	150	S	152D157X9020S2*	82	S	152D826X9035S2
1000	S	152D108X9006S2*	27	B	152D276X9015B2	180	S	152D187X9020S2	100	S	152D107X9035S2*
			33	B	152D336X9015B2*	220	S	152D227X9020S2*	50 WVDC, 65 VDC SURGE		
10 WVDC, 13 VDC SURGE			39	B	152D396X9015B2	30 WVDC, 39 VDC SURGE			1.2	A	152D125X9050A2
5.6	A	152D565X9010A2	82	R	152D826X9015R2	2.2	A	152D225X9030A2*	1.5	A	152D155X9050A2*
6.8	A	152D685X9010A2*	100	R	152D107X9015R2*	2.7	A	152D275X9030A2	5.6	B	152D565X9050B2
8.2	A	152D825X9010A2	120	R	152D127X9015R2	12	B	152D126X9030B2	6.8	B	152D685X9050B2*
10	A	152D106X9010A2*	150	R	152D157X9015R2*	15	B	152D156X9030B2*	22	B	152D226X9050R2*
47	B	152D476X9010B2*	180	R	152D187X9015R2	18	B	152D186X9030B2	27	R	152D276X9050R2
56	B	152D566X9010B2	220	S	152D227X9015S2*	56	R	152D566X9030R2	33	S	152D336X9050S2*
68	B	152D686X9010B2*	270	S	152D277X9015S2	68	R	152D686X9030R2*	39	S	152D396X9050S2
			330	S	152D337X9015S2*				47	S	152D476X9050S2*