click here to see hardware and mounting options

Type 3191, Aluminum Electrolytic Screw Terminal

Screw Terminal Capacitors for Power Output Filtering

The low ESR of Type 3191 capacitors makes them a great choice for output filtering in switching and audio power supplies. It's available with the capacitor element potted in place for lowest cost or secured by rill, spoon shaped dimples in the side of the can. Rilled construction offers high vibration and shock withstanding and excellent heat transfer for higher ripple current.

Highlights

- Stud mount available
- High current application
- Industrial applications
- Smoothing and filtering
- Audio power supplies

Specifications

Temperature Range	–40 ºC to +85 ºC
Rated Voltage Range	7.5 Vdc to 55 Vdc
Capacitance Range	2700 µF to 150000 µF
Capacitance Tolerance	–10 to + 30%; –10 to +50%; ±20%
Leakage Current	$\leq 6\sqrt{CV}$ µA (6 mA max.) at 5 minutes
Ripple Current Multipliers	Ambient Temperature **45 °C**: 2.24 · **55 °C**: 2.00 · **65 °C**: 1.73 · **75 °C**: 1.41 · **85 °C**: 1.00 Frequency **16 – 100 V**: 0.90 · 1.00 · 1.15 · 1.25 · 1.30 (60 Hz · 120 Hz · 300 Hz · 1000 Hz · ≥10 kHz) **200 – 500 V**: 0.90 · 1.00 · 1.25 · 1.40 · 1.50
Low Temperature Characteristics	Impedance ratio: $Z_{-20\,^{\circ}C}/Z_{+25\,^{\circ}C}$ ≤ 8 (16–50 Vdc) ≤ 4 (63–100 Vdc) ≤ 3 (150–500 Vdc)
Endurance Life Test	1,500 h @ full load at 85 °C ΔCapacitance ±10% ESR 200% of limit DCL 100% of limit
Shelf Life Test	500 h @ 85 °C ΔCapacitance ±10% ESR 175% of limit DCL 100% of limit
Vibration	10 to 500 Hz, 0.75 mm or 10 g* if less, 3 directions, 2 h ea Δ Capacitance: ±5% no visible damage or leakage *15 g if rilled construction
RoHS Compliant	

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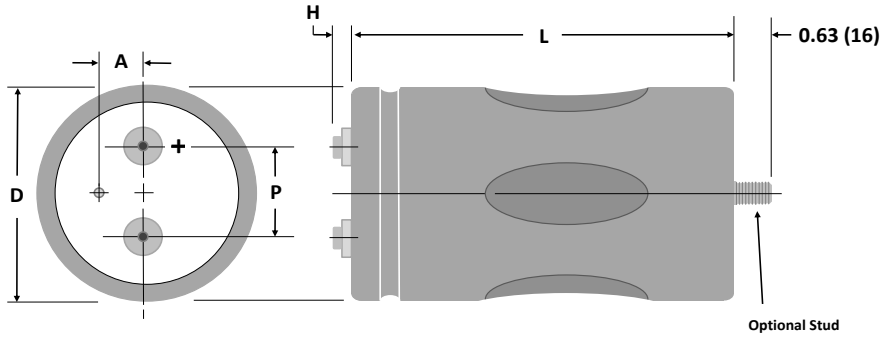
Part Numbering System

3191	BA	153	T	7R5	B	P	A1
Type	**Case Code**	**Capacitance** 153=15000 µF 223=22000 µF 272=2700 µF	**Tolerance** M= ±20% S= –10 +30% T= –10 +50% U= –10 +75%	**Voltage** 7R5=7.5 Vdc 020=20 Vdc	**Terminal** A=high post B=low post D=high current low post K=high current	**Insulation** P=0.008" PVC H=0.012" PVC N=none with mounting R=0.008" PVC	**Construction*** A1=potted R1=rilled S1=stud & potted T1=stud & rilled**

* Construction code is also a sequence number, e.g., A1, A2,---,A9, B1,B2,---, for customer specifications. Sequence number 1 in A1, R1, S1 and T1 denotes the standard catalog capacitor with no special requirements.
** Mounting stud not available for 1.375" diameter cases, case codes BA, BC and BE.

Outline Drawing



Insulation Dimensions

Code	Clamp Bracket	Insulation Type	Dimension Adders		
			D	L	H
			Dimensions in Inches		
P	no	0.008" PVC	+0.02	+0.032	+0.024
H	no	0.012" PVC	+0.03	+0.062	+0.045
N	no	none	–	–	–
R	yes	0.008" PVC	+0.02	+0.032	+0.024
J	yes	0.012" PVC	+0.03	+0.062	+0.045
X	yes	none	–	–	–

Terminal Dimensions

Terminal Style	For Case Diameters	Code	Post Diameter in	Post Diameter mm	H max in	H max mm	Thread	min Full Thread in	min Full Thread mm	Torque in·lb	Torque N·m
Low Post	1 3/8 to 3	B	0.314	8.0	0.094	2.4	10–32	0.218	5.5	25	2.82
High Post	1 3/8 to 3	A	0.314	8.0	0.281	7.1	10–32	0.375	9.5	25	2.82
High Current, Low	2 1/2 & 3	D	0.684	17.4	0.125	3.2	¼–28	0.344	8.7	60	6.78
High Current, High	2 1/2 & 3	K	0.684	17.4	0.281	7.1	¼–28	0.469	11.9	60	6.78
M5 Post, Small	1 3/8 to 2	M	0.314	8.0	0.281	7.1	M5	0.375	9.5	25	2.82
M6 Low Post	2 1/2 & 3	J	0.684	17.4	0.125	3.2	M6	0.344	8.7	60	6.78

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Case Dimensions, Uninsulated Bare Can

Case Code	Diameter (D)		Length (L)		Pitch (P)		Plug (A)		Typical		Optional Bracket Part No.
	±0.031 (Inches)	±0.79 (mm)	±0.062 (Inches)	±1.157 (mm)	±0.014 (Inches)	±0.356 (mm)	A (Inches)	A (mm)	Weight (oz)	Weight (g)	
BA	1.375	34.9	2.125	54.0	0.500	12.7	0.390	9.9	2.53	72	115058-06
BB	1.375	34.9	2.625	66.7	0.500	12.7	0.390	9.9	3.17	90	115058-06
BC	1.375	34.9	3.125	79.4	0.500	12.7	0.390	9.9	3.70	105	115058-06
BD	1.375	34.9	3.625	92.1	0.500	12.7	0.390	9.9	4.22	120	115058-06
BE	1.375	34.9	4.125	104.8	0.500	12.7	0.390	9.9	4.75	135	115058-06
BF	1.375	34.9	4.625	117.5	0.500	12.7	0.390	9.9	5.98	170	115058-06
BG	1.375	34.9	5.125	130.2	0.500	12.7	0.390	9.9	7.74	220	115058-06
BH	1.375	34.9	5.625	142.9	0.500	12.7	0.390	9.9	9.50	270	115058-06
DA	1.75	44.5	2.125	54.0	0.750	19.1	0.453	11.5	5.63	160	115058-15
DB	1.75	44.5	2.625	66.7	0.750	19.1	0.453	11.5	6.16	175	115058-15
DC	1.75	44.5	3.125	79.4	0.750	19.1	0.453	11.5	6.34	180	115058-15
DD	1.75	44.5	3.625	92.1	0.750	19.1	0.453	11.5	7.22	205	115058-15
DE	1.75	44.5	4.125	104.8	0.750	19.1	0.453	11.5	7.74	220	115058-15
DF	1.75	44.5	4.625	117.5	0.750	19.1	0.453	11.5	8.27	235	115058-15
DG	1.75	44.5	5.125	130.2	0.750	19.1	0.453	11.5	8.80	250	115058-15
DH	1.75	44.5	5.625	142.9	0.750	19.1	0.453	11.5	9.50	270	115058-15
EA	2	50.8	2.125	54.0	0.875	22.2	0.500	12.7	5.98	170	115058-09
EB	2	50.8	2.625	66.7	0.875	22.2	0.500	12.7	6.34	180	115058-09
EC	2	50.8	3.125	79.4	0.875	22.2	0.500	12.7	6.69	190	115058-09
ED	2	50.8	3.625	92.1	0.875	22.2	0.500	12.7	7.74	220	115058-09
EE	2	50.8	4.125	104.8	0.875	22.2	0.500	12.7	8.98	255	115058-09
EF	2	50.8	4.625	117.5	0.875	22.2	0.500	12.7	10.21	290	115058-09
EG	2	50.8	5.125	130.2	0.875	22.2	0.500	12.7	11.26	320	115058-09
EH	2	50.8	5.625	142.9	0.875	22.2	0.500	12.7	8.80	250	115058-09
FB	2.5	63.5	2.625	66.7	1.125	28.6	0.625	15.9	10.56	300	115058-14
FC	2.5	63.5	3.125	79.4	1.125	28.6	0.625	15.9	13.02	370	115058-14
FD	2.5	63.5	3.625	92.1	1.125	28.6	0.625	15.9	14.08	400	115058-14
FE	2.5	63.5	4.125	104.8	1.125	28.6	0.625	15.9	15.66	445	115058-14
FF	2.5	63.5	4.625	117.5	1.125	28.6	0.625	15.9	21.12	600	115058-14
FG	2.5	63.5	5.125	130.2	1.125	28.6	0.625	15.9	22.88	650	115058-14
FH	2.5	63.5	5.625	142.9	1.125	28.6	0.625	15.9	21.12	600	115058-14
GC	3	76.2	3.125	79.4	1.250	31.8	0.750	19.1	18.30	520	115058-11
GD	3	76.2	3.625	92.1	1.250	31.8	0.750	19.1	20.06	570	115058-11
GE	3	76.2	4.125	104.8	1.250	31.8	0.750	19.1	21.12	600	115058-11
GF	3	76.2	4.625	117.5	1.250	31.8	0.750	19.1	25.34	720	115058-11
GG	3	76.2	5.125	130.2	1.250	31.8	0.750	19.1	29.92	850	115058-11
GH	3	76.2	5.625	142.9	1.250	31.8	0.750	19.1	34.14	970	115058-11
GJ	3	76.2	5.825	148.0	1.250	31.8	0.750	19.1	36.96	1050	115058-11
GN	3	76.2	8.625	219.1	1.250	31.8	0.750	19.1	51.39	1460	115058-11

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Cap (µF)	Type 3191 Catalog Part Number	ESR max 120 Hz 25 °C (mΩ)	Ripple max 120 Hz 85 °C potted (A)	Ripple max 120 Hz 85 °C rilled(A)	Case Size DxL (in)
16 Vdc (20.8 Vdc Surge)					
10000	3191BA103M016BPA1	16.7	8.2	9.3	1.375x2.125
12000	3191BB123M016BPA1	14.2	9.2	10.4	1.375x2.625
15000	3191BC153M016BPA1	11.7	10.8	12.1	1.375x3.125
18000	3191BC183M016BPA1	11.3	12.1	13.5	1.375x3.125
22000	3191BD223M016BPA1	9.8	12.8	14.2	1.375x3.625
22000	3191EA223M016BPA1	9.8	12.5	14.2	2.00x2.125
27000	3191BF273M016BPA1	8.4	15.4	16.8	1.375x4.625
27000	3191EB273M016BPA1	8.4	14.7	16.8	2.00x2.625
33000	3191BG333M016BPA1	7.6	17.2	18.4	1.375x5.125
33000	3191EC333M016BPA1	7.6	16.1	18.4	2.00x3.125
39000	3191EC393M016BPA1	9.1	15.7	17.9	2.00x3.125
47000	3191ED473M016BPA1	7.8	17.4	19.7	2.00x3.625
56000	3191EE563M016BPA1	7.1	19.0	21.5	2.00x4.125
68000	3191EF683M016BPA1	6.4	21.2	23.5	2.00x4.625
82000	3191EG823M016BPA1	5.9	22.8	25.3	2.00x5.125
20 Vdc (26 Vdc Surge)					
8200	3191BA822M020BPA1	18.2	7.8	8.9	1.375x2.125
10000	3191BB103M020BPA1	15.1	8.9	10.1	1.375x2.625
12000	3191BB123M020BPA1	14.2	9.6	10.8	1.375x2.625
15000	3191BC153M020BPA1	11.9	11.1	12.4	1.375x3.125
18000	3191BD183M020BPA1	11.0	12.5	13.9	1.375x3.625
22000	3191BE223M020BPA1	9.3	13.9	15.4	1.375x4.125
22000	3191EA223M020BPA1	9.3	13.5	15.4	2.00x2.125
27000	3191BF273M020BPA1	8.0	16.0	17.4	1.375x4.625
27000	3191EB273M020BPA1	8.0	15.5	17.4	2.00x2.625
33000	3191BH333M020BPA1	7.3	18.0	19.4	1.375x5.625
33000	3191EC333M020BPA1	7.3	17.0	19.4	2.00x3.125
39000	3191ED393M020BPA1	7.9	16.7	18.9	2.00x3.625
47000	3191EE473M020BPA1	7.0	19.6	21.7	2.00x4.125
56000	3191EF563M020BPA1	6.4	21.9	23.9	2.00x4.625
68000	3191EG683M020BPA1	5.9	22.3	24.8	2.00x5.125
82000	3191EH823M020BPA1	5.6	24.6	27.1	2.00x5.625
28 Vdc (36.4 Surge)					
4700	3191BA472M028BPA1	23.4	6.6	7.5	1.375x2.125
5600	3191BB562M028BPA1	22.5	7.0	7.9	1.375x2.625
6800	3191BB682M028BPA1	19.0	7.5	8.5	1.375x2.625
8200	3191BB822M028BPA1	17.5	8.3	9.4	1.375x2.625
10000	3191BC103M028BPA1	15.0	10.1	11.3	1.375x3.125
12000	3191BD123M028BPA1	12.7	11.4	12.7	1.375x3.625
15000	3191BE153M028BPA1	11.2	12.7	14.1	1.375x4.125
15000	3191EA153M028BPA1	11.2	12.4	14.1	2.00x2.125

Cap (µF)	Type 3191 Catalog Part Number	ESR max 120 Hz 25 °C (mΩ)	Ripple max 120 Hz 85 °C potted (A)	Ripple max 120 Hz 85 °C rilled(A)	Case Size DxL (in)
28 Vdc (36.4 Surge)					
18000	3191BF183M028BPA1	9.9	14.6	15.9	1.375x4.625
18000	3191EB183M028BPA1	9.9	14.2	15.9	2.00x2.625
22000	3191BG223M028BPA1	8.6	7.0	7.5	1.375x5.125
22000	3191EC223M028BPA1	8.6	6.6	7.5	2.00x3.125
27000	3191ED273M028BPA1	8.1	16.9	19.1	2.00x3.625
33000	3191EE333M028BPA1	7.3	19.2	21.7	2.00x4.125
39000	3191EF393M028BPA1	6.6	21.5	23.9	2.00x4.625
47000	3191EG473M028BPA1	6.0	22.8	25.3	2.00x5.125
35 Vdc (45.5 Vdc Surge)					
3900	3191BA392M035BPA1	25.4	6.8	7.7	1.375x2.125
4700	3191BB472M035BPA1	21.2	7.9	8.9	1.375x2.625
5600	3191BB562M035BPA1	19.1	8.2	9.3	1.375x2.625
6800	3191BC682M035BPA1	17.2	8.8	9.9	1.375x3.125
8200	3191BD822M035BPA1	14.7	10.7	11.9	1.375x3.625
10000	3191BD103M035BPA1	12.9	11.7	13	1.375x3.625
10000	3191EA103M035BPA1	12.9	11.4	13	2.00x2.125
12000	3191BF123M035BPA1	11.4	13.1	14.3	1.375x4.625
12000	3191EB123M035BPA1	11.4	12.8	14.3	2.00x2.625
15000	3191BG153M035BPA1	9.6	14.8	15.8	1.375x5.125
15000	3191EC153M035BPA1	9.6	14.1	15.8	2.00x3.125
18000	3191ED183M035BPA1	8.8	16.7	18.9	2.00x3.625
22000	3191ED223M035BPA1	8.1	17.9	20.2	2.00x3.625
27000	3191EF273M035BPA1	6.9	20.2	22.8	2.00x4.125
33000	3191EG333M035BPA1	6.4	22.2	24.6	2.00x5.125
39000	3191EH393M035BPA1	6.0	24.4	26.8	2.00x5.625
55 Vdc (71.5 Vdc Surge)					
2700	3191BA272M055BPA1	33.2	6.3	7.2	1.375x2.125
3900	3191BB392M055BPA1	23.3	8.0	9	1.375x2.625
4700	3191BC472M055BPA1	19.4	9.1	10.2	1.375x3.125
5600	3191BD562M055BPA1	16.4	10.5	11.6	1.375x3.625
6800	3191BE682M055BPA1	15.2	11.6	12.9	1.375x4.125
6800	3191EA682M055BPA1	15.2	11.3	12.9	2.00x2.125
8200	3191BF822M055BPA1	12.7	13.5	14.7	1.375x4.625
8200	3191EB822M055BPA1	12.7	12.9	14.7	2.00x2.625
10000	3191BH103M055BPA1	10.9	16.1	17.2	1.375x5.625
10000	3191EC103M055BPA1	10.9	15.1	17.2	2.00x3.125
12000	3191ED123M055BPA1	9.9	16.5	18.6	2.00x3.625
15000	3191EE153M055BPA1	8.9	18.0	20.3	2.00x4.125
18000	3191EF183M055BPA1	7.8	19.6	21.8	2.00x4.625
22000	3191EG223M055BPA1	7.1	21.7	24.1	2.00x5.125

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OCEAN CHIPS
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Поставка электронных компонентов

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Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
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- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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AVIC JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).

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