

Type 7P, 55 °C Photoflash, High-Energy, Long Life, Aluminum

Type 7P Photoflash Capacitors



High Energy, Long-Life Snapmount or Solder-Lug Terminals

Rugged Type 7P capacitors can withstand more than 100,000 full discharges in typical photoflash applications—that's more than ten times the life of ordinary photoflash capacitors. And thanks to special, high-energy anode foil, the Type 7P has industry-leading energy densities of more than 1 joule per cc.

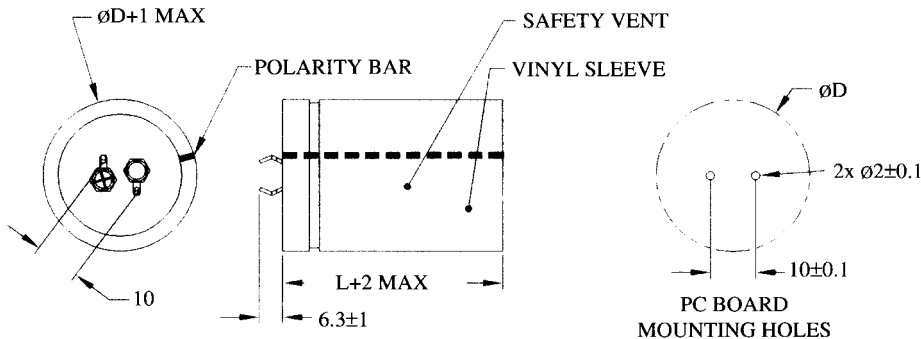
Highlights

- ♦ 100,000 flash capability
- ♦ 1 joule per cc energy density

Specifications

Operating Temperature Range:	–20 °C to +55 °C
Rated Voltage:	330 or 360 Vdc
Capacitance:	300 to 3000 µF –10% +20%
Leakage Current:	1 times C in µA maximum at 5 min.
Dissipation Factor (Tanδ):	15% max. @ 25 °C & 120 Hz
Discharge Life:	100,000 minimum at 30 s interval Δ Capacitance ±10% ESR 150% of limit DCL 150% of limit
Shelf Life:	500 h @ +70 °C Δ Capacitance ±10% ESR 150% of limit DCL 150% of limit
Vibration:	10 to 55 Hz; 0.06" and 10 g max, 6 h vertical, 2 h. ea. 2 other planes

Outline Drawings

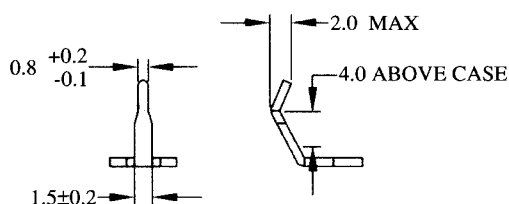


Photoflash
Strobe-Flash
Capacitors

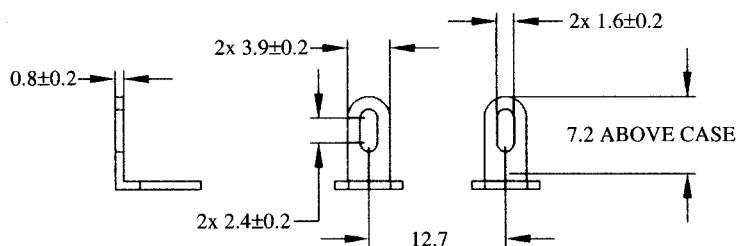
Type 7P, 55 °C Photoflash, High-Energy, Long Life, Aluminum

Terminal Drawings

Snap-In Terminals



Solder-Lug Terminals



Part Numbering System

7P	122	V	330	N05	2	L
Type	Capacitance 301 = 300 μ F 122 = 1200 μ F	Tolerance -10 + 20%	Rated Voltage	Case Code	Insulation 2 = PVC	Terminals (blank) = snap-in L = solder lugs

Ratings

Cap. μ F	Catalog Number	ESR Max. Ω @ +25°C 120 Hz	Diameter mm	Length in
330 Vdc (360 Vdc Surge)				
300	7P301V330J032	0.663	25	0.98
300	7P301V330K012	0.663	30	1.18
350	7P351V330J042	0.568	25	0.98
350	7P351V330K022	0.568	30	1.18
400	7P401V330J042	0.497	25	0.98
400	7P401V330K022	0.497	30	1.18
500	7P501V330J052	0.398	25	0.98
500	7P501V330K032	0.398	30	1.18
600	7P601V330K042	0.332	30	1.18
700	7P701V330A042	0.284	35	1.38
800	7P801V330A042	0.249	35	1.38
900	7P901V330A052	0.221	35	1.38
900	7P901V330A452	0.221	35	1.38
1000	7P102V330A052	0.199	35	1.38
1000	7P102V330N042	0.199	40	1.57
1200	7P122V330A052	0.166	35	1.38
1500	7P152V330A062	0.133	35	1.38
2000	7P202V330A082	0.099	35	1.38
2700	7P272V330N082	0.074	40	1.57

Cap. μ F	Catalog Number	ESR Max. Ω @ +25°C 120 Hz	Diameter mm	Length in
360 Vdc (390 Vdc Surge)				
300	7P301V360J042	0.663	25	0.98
350	7P351V360K022	0.568	30	1.18
350	7P351V360A012	0.568	35	1.38
400	7P401V360J052	0.497	25	0.98
400	7P401V360K032	0.497	30	1.18
450	7P451V360K032	0.442	30	1.18
450	7P451V360A022	0.442	35	1.38
500	7P501V360K042	0.398	30	1.18
600	7P601V360A032	0.332	35	1.38
700	7P701V360A042	0.284	35	1.38
800	7P801V360A452	0.249	35	1.38
900	7P901V360N042	0.221	40	1.57
1000	7P102V360A052	0.199	35	1.38
1200	7P122V360A062	0.166	35	1.38
1500	7P152V360A072	0.133	35	1.38
2000	7P202V360N082	0.099	40	1.57
2500	7P252V360N082	0.080	40	1.57

Photoflash
Strobe-Flash
Capacitors

Type PF, 55 °C Photoflash, High-Energy, Long Life, 500 V, Aluminum

High Energy, Long-Life



High Energy, Long-Life Screw-Terminals Case Style

Type PF can withstand more than 100,000 full discharges in typical photoflash applications, and Type PF also delivers the higher energy density possible with a rated voltage of 500 V and higher capacitance values in screw-terminal style cans. Type PF is right for the highest flash-energy applications.

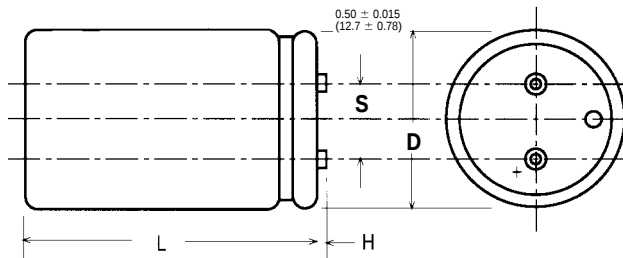
Highlights

- ♦ 100,000 flash capability
- ♦ 1 joule per cc energy density

Specifications

Operating Temperature Range:	–20 °C to 55 °C
Rated Voltage:	500 Vdc
Capacitance:	600 to 2100 μ F –10% +20%
Leakage Current:	1 times C in μ A maximum
Dissipation Factor (Tanδ):	15% max. @ 25 °C & 120 Hz
Discharge Life:	100,000 minimum at 30 s interval Δ Capacitance $\pm$ 10%, ESR 150% of limit DCL 150% of limit
Shelf Life:	500 h @ 55 °C Δ Capacitance $\pm$ 10% ESR 150% of limit DCL 150% of limit
Vibration:	10 to 55 Hz; 0.06" and 10 g max, 6 h vertical, 2 h. ea. 2 other planes

Outline Drawings



Terminal Styles	Code	H		Thread
		(in)	(mm)	
Low Post	A	.094	2.39	10-32
High Post	B	.281	7.14	10-32

Type PF, 55 °C Photoflash, High-Energy, Long Life, 500 V, Aluminum

Case Dimensions

Insulated Case Dimensions

Case Code	Diam. (D)		Length (L)		Terminals (S)		Typical Weight	
	±.031	±.062	±.062	±1.57	±0.015	±0.38	oz	g
	Inches	mm	Inches	mm	Inches	mm		
AK	1.399	35.5	1.687	42.8	0.500	12.7	1.9	53.9
AA	1.399	35.5	2.187	55.5	0.500	12.7	2.0	56.7
AH	1.399	35.5	2.687	68.2	0.500	12.7	2.7	76.5
AB	1.399	35.5	3.187	80.9	0.500	12.7	3.3	93.6
AJ	1.399	35.5	3.687	93.6	0.500	12.7	3.8	107.7
AC	1.399	35.5	4.187	106.3	0.500	12.7	4.4	124.7
AD	1.399	35.5	4.687	119.0	0.500	12.7	5.1	144.6
AE	1.399	35.5	5.187	131.7	0.500	12.7	5.7	161.6
AF	1.399	35.5	5.687	144.4	0.500	12.7	6.4	181.4
EA	1.774	45.1	2.187	55.5	0.750	19.1	2.7	76.5
EH	1.774	45.1	2.687	68.2	0.750	19.1	3.8	107.7
EB	1.774	45.1	3.187	80.9	0.750	19.1	5.1	144.6
EJ	1.774	45.1	3.687	93.6	0.750	19.1	6.8	192.8
EC	1.774	45.1	4.187	106.3	0.750	19.1	8.1	229.6
ED	1.774	45.1	4.687	119.0	0.750	19.1	9.9	280.7
EE	1.774	45.1	5.187	131.7	0.750	19.1	9.5	269.3
EF	1.774	45.1	5.687	144.4	0.750	19.1	10.5	297.7
BA	2.024	51.4	2.187	55.5	0.875	22.2	2.7	76.5
BH	2.024	51.4	2.687	68.2	0.875	22.2	5.4	153.1
BB	2.024	51.4	3.187	80.9	0.875	22.2	6.1	172.9
BJ	2.024	51.4	3.687	93.6	0.875	22.2	6.8	192.8
BC	2.024	51.4	4.187	106.3	0.875	22.2	8.2	232.5
BD	2.024	51.4	4.687	119.0	0.875	22.2	9.6	272.1
BE	2.024	51.4	5.187	131.7	0.875	22.2	10.3	292.0
BF	2.024	51.4	5.687	144.4	0.875	22.2	13.0	368.5

Part Numbering System

PF	212	V	500	BF	2	B
Type	Capacitance 601 = 600 μ F 212 = 2100 μ F	Tolerance -10 + 20%	Rated Voltage Vdc	Case Code	Insulation 0 = none 2 = PVC	Terminals A = Low post, 10-32 B = High post, 10-32

Ratings

Cap. μ F	Catalog Number	ESR Max. Ω +25°C 120 Hz	Diameter (mm)	(in)	Length (mm)	(in)
500 Vdc (550 Vdc Surge)						
600	PF601V500AJ2B	0.332	35	1.38	92	3.63
800	PF801V500AD2B	0.249	35	1.38	117	4.63
900	PF901V500EJ2B	0.221	44	1.75	92	3.63
1000	PF102V500AF2B	0.199	35	1.38	143	5.63
1200	PF122V500BJ2B	0.166	51	2.00	92	3.63
1300	PF132V500ED2B	0.153	44	1.75	117	4.63
1600	PF162V500BD2B	0.124	51	2.00	117	4.63
1700	PF172V500EF2B	0.117	44	1.75	143	5.63
2100	PF212V500BF2B	0.095	51	2.00	143	5.63

Photoflash
Strobe-Flash
Capacitors



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Type ST, 55 °C Strobe-Flash, Long-Life, 360 & 450 V, Aluminum

Type ST Strobe-Flash Capacitors



High Energy, Long-Life

Rugged Type ST capacitors can withstand more than 30 million full discharges in typical strobe-lamp applications—that's more than ten years' operation in emergency vehicles. This exceptional life capability is also available in screw-terminal and other case styles and other capacitance values.

The ST's magic is its ability to handle the spectrum of currents caused by full discharge at 1 Hz and faster rates. Because discharge energy is at frequencies from less than a hertz to thousands of hertz, power loss and heating are not predicted by the ESR at 120 Hz, and the open-structure anode foil of Type ST excels at low loss over the full spectrum.

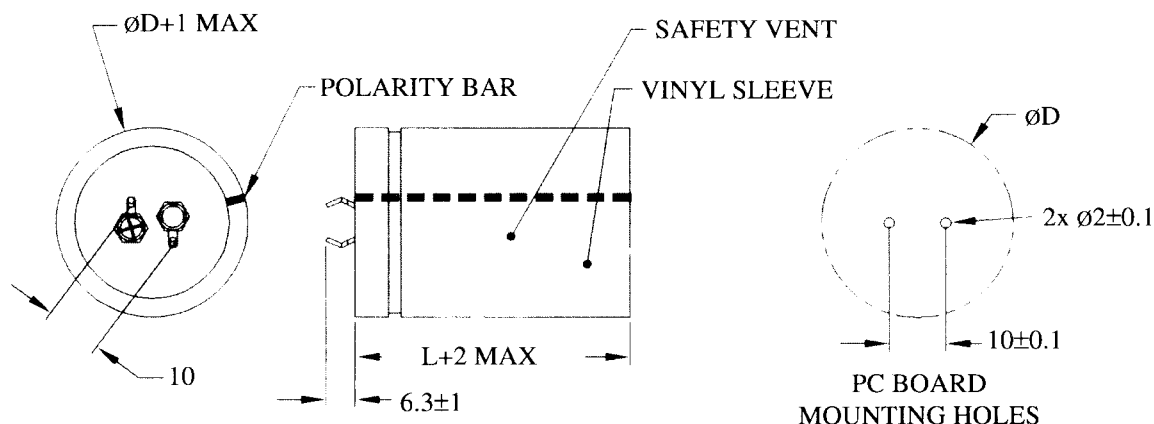
Highlights

- ♦ Tested to More than 10 Million Flashes
- ♦ More than 30 Million Flashes Typical Life
- ♦ Snapmount or Solder-Lug Terminals

Specifications

Operating Temperature:	– 40 °C to +55 °C
Rated Voltage:	360 or 450 Vdc
Capacitance:	30 to 300 μ F – 10% +20%
Leakage Current:	0.01 CV +20 μ A at 25 °C
Cold Impedance:	– 20 °C multiplier of 25 °C $Z \leq 2$
Dissipation Factor:	7% maximum @ 25 °C & 120 Hz
Discharge Life:	10 million discharges at 1 s interval, xenon flash tube 0.7 to 1 Ω Δ capacitance $\pm 10\%$, ESR 150% of limit, DCL 150% of limit
Shelf Life:	500 h @ +55 °C, Δ capacitance $\pm 10\%$ ESR 150% of limit, DCL 150% of limit
Vibration:	10 to 55 Hz; 0.06" and 10 g max, 6 h vertical, 2 h each, 2 other planes

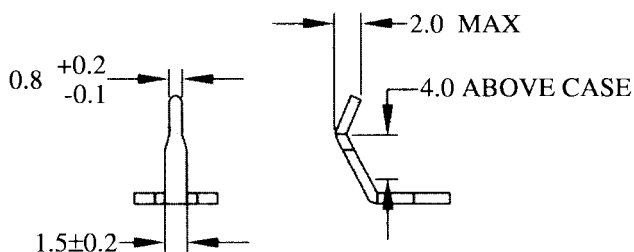
Outline Drawings



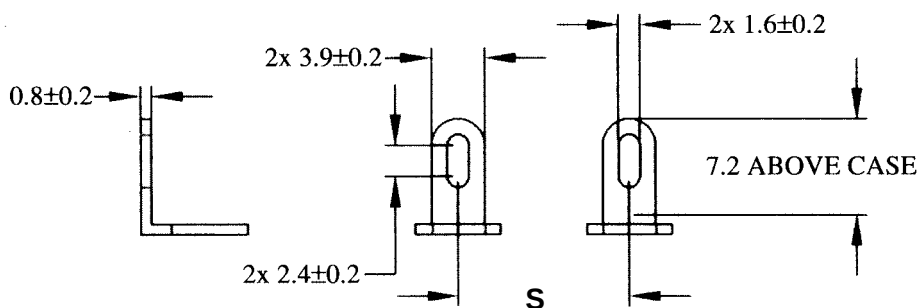
Type ST, 55 °C Strobe-Flash, Long-Life, 360 & 450 V, Aluminum

Terminal Drawings

Snap-In Terminals



Solder-Lug Terminals



Case Dimensions

Case Code	Diam. (D) Max.		Length (L) Max.		Terminal Spacing (S)		Typical Weight
	mm	Inches	mm	Inches	mm	Inches	
H04	22	0.87	40	1.57	8.5	0.33	24
J01	25	0.98	25	0.98	10.0	0.39	20
J02	25	0.98	30	1.18	10.0	0.39	24
J03	25	0.98	35	1.38	10.0	0.39	27
J04	25	0.98	40	1.57	10.0	0.39	31
J05	25	0.98	50	1.97	10.0	0.39	38
K03	30	1.18	35	1.38	12.7	0.50	40
K04	30	1.18	40	1.57	12.7	0.50	44
K05	30	1.18	50	1.97	12.7	0.50	53
A05	35	1.38	50	1.97	12.7	0.50	67
A06	35	1.38	63	2.48	12.7	0.50	88

Photoflash
Strobe-Flash
Capacitors

Type ST, 55 °C Strobe-Flash, Long-Life, 360 & 450 V, Aluminum

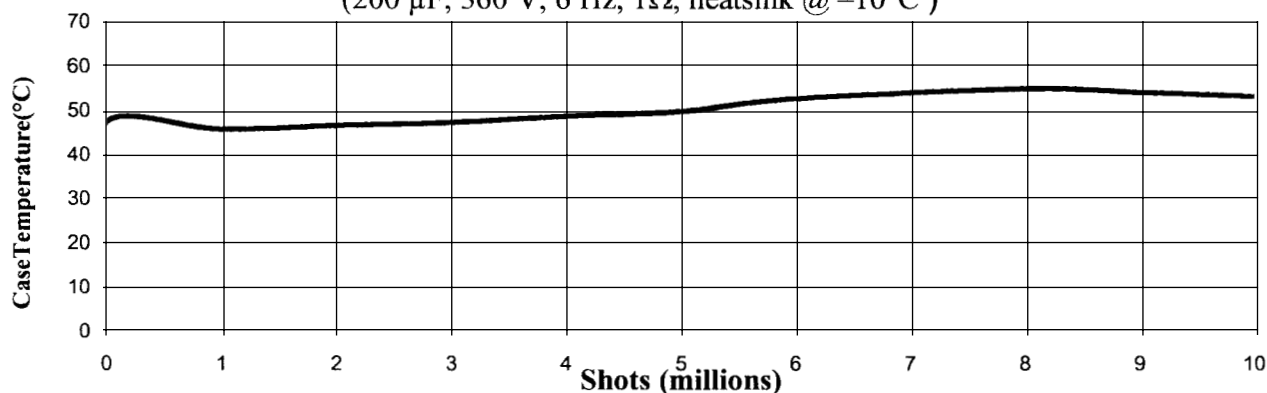
Part Numbering System

ST	121	V	360	J05	2	L
Type	Capacitance	Tolerance	Rated Voltage	Case Code	Insulation	Terminals
	300 = 30 μ F 121 = 120 μ F	-10 + 20%			2 = PVC	blank = snap-in L = solder lugs

Typical Performance Curves

Strobe Discharge Life Test

(200 μ F, 360 V, 6 Hz, 1 Ω , heatsink @ -10°C)



Ratings

Cap. μ F	Catalog Number	ESR Max. Ω +25°C 120 Hz	Diameter		Length	
			mm	in	mm	in
360 Vdc (390 Vdc Surge)						
48	ST480V360J012	1.92	25	0.98	25	0.98
60	ST600V360J022	1.54	25	0.98	30	1.18
80	ST800V360J032	1.15	25	0.98	35	1.38
100	ST101V360J042	0.92	25	0.98	40	1.57
120	ST121V360K032	0.77	30	1.18	35	1.38
150	ST151V360J052	0.61	25	0.98	50	1.97
200	ST201V360K052	0.46	30	1.18	50	1.97
250	ST251V360A052	0.37	35	1.38	50	1.97
300	ST301V360A062	0.31	35	1.38	63	2.48
450 Vdc (500 Vdc Surge)						
30	ST300V450J012	3.07	25	0.98	25	0.98
40	ST400V450H042	2.30	22	0.87	40	1.57
50	ST500V450J032	1.84	25	0.98	35	1.38
60	ST600V450J042	1.54	25	0.98	40	1.57
80	ST800V450J052	1.15	25	0.98	50	1.97
100	ST101V450K042	1.08	30	1.18	40	1.57
120	ST121V450K052	0.77	30	1.18	50	1.97
150	ST151V450A052	0.61	35	1.38	50	1.97

Photoflash
Strobe-Flash
Capacitors